Dataset 7: Research Impact Toolkit

Abstract

The "Research Impact Toolkit" dataset, developed by University College Dublin, offers a comprehensive framework to understand, plan, capture, communicate, and monitor the impact of research. It provides tools and resources to guide researchers through the complexities of research impact, encompassing both academic and societal contributions. The toolkit introduces key concepts such as the impact journey, outlining the stages from inputs to long-term societal changes, and emphasizes the importance of reach and significance in achieving meaningful outcomes. It includes practical tools like the UCD Impact Planning Canvas to help researchers strategically integrate impact planning into their work at any stage. With a focus on fostering collaborations, engaging beneficiaries, and leveraging social media and communication strategies, this dataset empowers researchers to maximize their contributions and effectively demonstrate the value of their research to society, academia, and beyond.

What is Impact?

The challenge

To plan, capture, communicate and monitor impact, you need to think systematically about the various ways people can benefit from your work. This is more important than ever, as major funding bodies around the world now consider impact a fundamental aspect of almost all research programmes.

But impact is complex. Although the impact of some research is apparent straight away, in other cases it can take years, or even decades, for impact to become evident. And this impact may be the result of hundreds of factors, of which your research is just one.

On top of that, research can affect all aspects of society, from culture to policy to the environment. A single research project can have impact in many different areas, and one impact may have knock-on effects elsewhere in society.

These distant time horizons and tangled pathways can make it incredibly difficult to consider impact. However, it is important that you do what you can to direct your research toward positive impacts – while mitigating negative impacts – and we have developed various supports and resources to help you. Watch our introductory video below:

While impact can be a tricky concept to get your head around, it doesn't need to be an additional burden. We know academics are already exceedingly busy with research, teaching, admin, and a thousand other things. You are not expected to spend hours every week meticulously planning and tracking your impact.

The tools on this website are designed to help you save time. By working no harder than you already do, we believe you can drastically increase the impact arising from your research. For us, impact is about creating opportunities to make a difference, and celebrating positive change when it occurs.

Defining impact

Broadly speaking, the impact of research can be academic or societal. That is, it can occur within academia or beyond it. For the most part, when people talk about *research impact*, they are using the term as a shorthand for those impacts on wider society.

We recognise that impact has academic, societal and economic elements, defined as follows:

Academic impact is the demonstrable contribution that excellent research makes to academic advances, across and within disciplines, including significant advances in understanding, method, theory and application.

Societal and economic impact is the demonstrable contribution that excellent research makes to society and the economy, of benefit to individuals, organisations and nations.

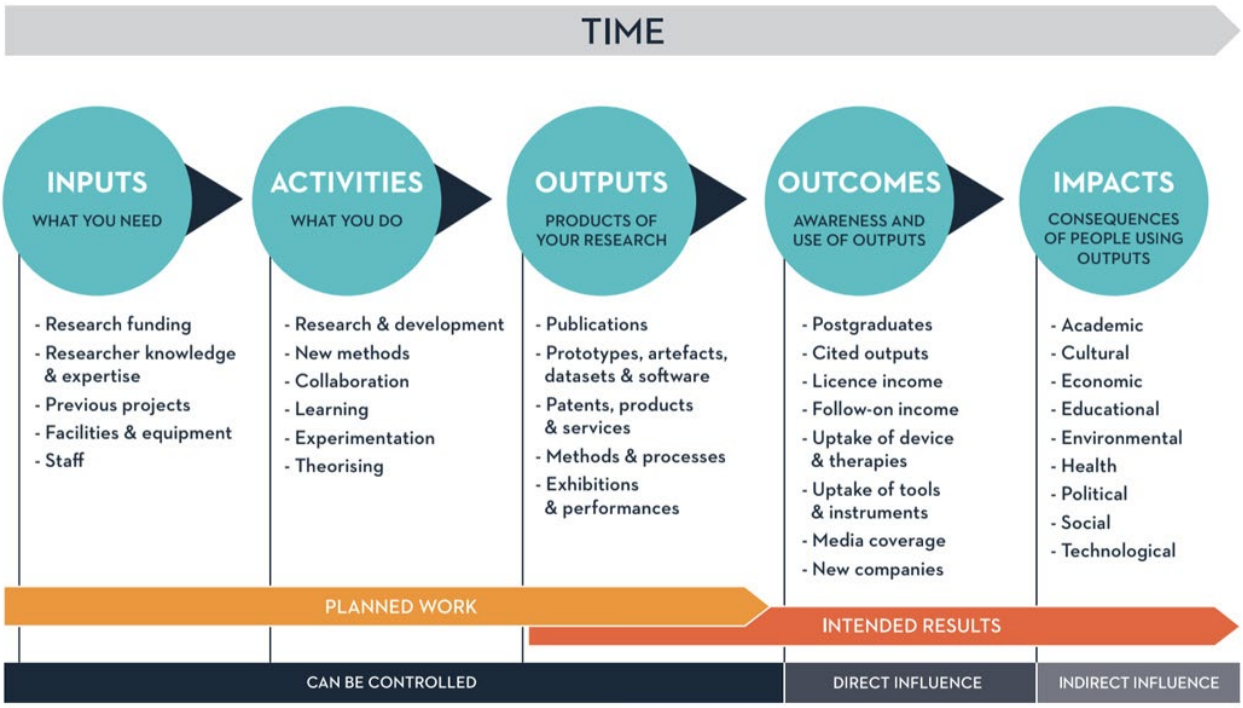
This is a broad definition – research can contribute to society in countless ways. Our classification system of different subtypes of impact (below) attempts to reflect this rich variety. It is based on a taxonomy developed by the European Science Foundation. Most research projects will have impacts in multiple areas.

The impact journey – untangling the terminology

The impact journey describes how research can lead to impacts on society (and academia). It traces research over time, distinguishing between five different stages on the pathway to impact:

- **Inputs:** What researchers need.
- **Activities:** What researchers do.
- **Outputs:** The products of research.
- **Outcomes:** People becoming aware of, and using, these products. They generally occur in the short- to medium-term.
- **Impacts:** Changes in society that result from outputs and outcomes. Typically, impacts occur in the longer-term.

The diagram below demonstrates this pathway, with examples under each of the five stages.



For more information on the impact journey, including concrete examples, click here.

What impact is made of

Impact is made up of two things: reach and significance. The biggest impact has both, but one or the other can still be meaningful.

Reach refers to how widespread the impact is, or how many beneficiaries there are.

Significance refers to how important or valuable the impact is to each beneficiary.

So, saving a life is profoundly significant at a small scale. Slightly enriching a million lives has substantial reach but less significance. Ideally, reach and significance will be considered relative to the academic disciplines and the scope of the research.

In summary

Impact is a change in the world which results from research. For example, this could be:

- Influencing policy
- Changing public opinion or informing debate
- Generating income or enabling savings to be made
- Improving systems, designs, or processes
- Enriching people's cultural lives

Impact is not the underlying activities that aim to effect these changes. However, these are often a crucial part of the impact journey, and it is still important to think and talk about them. Examples include:

- Publishing academic papers
- Discussing one's research in the media
- Coordinating public engagement activities
- Generating interest in research via social media
- Presenting at conferences

To learn more about impact, consider watching this excellent (opens in a new window)nine-part video series created for NUI Galway by Saskia Walcott, an impact consultant based in the UK.
Explore our toolkit now to learn how to plan, capture, communicate and monitor your impact. The toolkit is made up of the resources and information found across this website, and you can explore it using the tabs at the top of the page.

Research impact planning

The tools, resources and information on this page will help you plan for impact, increasing the likelihood of your research making a positive difference in the world.

Using them, you will be able to identify who in society stands to benefit from your research, work out how you can connect with the right people to create impact, and write more convincingly about the potential impact of your work.

What is impact?

Before you can plan for your own impact, you need to know what it is. Our introductory page offers definitions, describes the various different types of impact that research can have, and explains why it's in your interest to think about impact.

UCD Impact Planning Canvas

Our Canvas, instructional video, and worked examples will walk you step-by-step through the process of planning for impact.

What is the Canvas and how do I use it?

The UCD Impact Planning Canvas is a tool which makes life easier by breaking impact down into its component parts. It can help with many aspects of impact planning, from identifying collaborators to writing impact sections in funding proposals.

It's preferable to think about impact at the beginning of a research project – this gives you the best chance of getting your research into the right hands to make a difference. However, the Canvas can be completed at any stage of the research journey. It's never too late to think about impact. The Canvas can also be used to reflect on completed projects, helping you identify impacts that may have already occurred.

The best way to fill it in is to use post-it notes, either physically or using an online whiteboard system, like (opens in a new window)Miro or (opens in a new window)Google Jamboard. This allows you to think flexibly, and makes it easier to adapt your responses as you work through the different sections.
Completing the canvas shouldn't take long – just 15 to 30 minutes.

Watch our video to learn how to fill in the Canvas:

Transcript of video

0:00

research can benefit the world in many

0:02

ways

0:03

with potential impacts across all

0:05

aspects of society from policy to

0:07

culture

0:08

to the environment to give your research

0:10

the best chance of making a difference

0:12

you need to think about impact in a

0:14

meaningful way

0:16

although it's best to consider impact

0:18

throughout your research program it's

0:20

especially important at the outset

0:23

by identifying potential impacts early

0:26

you can put the right measures in place

0:28

to ensure

0:29

your research gets into the right hands

0:30

and creates positive change

0:33

you will also be able to write a more

0:35

compelling and convincing impact section

0:37

in your funding proposal

0:40

this is where the ucd impact planning

0:42

canvas comes in

0:44

a tool which makes life easier by

0:46

breaking impact down

0:47

into its component parts we have

0:50

designed the canvas to reflect the

0:52

systemic way

0:53

impact should be integrated into a

0:55

research program

0:56

there are three regions on the left hand

0:59

side we have factors relating to your

1:01

research

1:02

on the right hand side we have factors

1:04

relating to the impact potential of your

1:07

research

1:09

and in the middle we have the unique

1:11

value proposition

1:12

acting as a bridge between your research

1:14

and its impact

1:17

the best way to fill in the canvas is to

1:19

use post-it notes

1:20

which allow you to be flexible in your

1:22

thinking and make it easier to change

1:24

your responses

1:27

completing the canvas shouldn't take

1:28

long just

1:30

15 to 30 minutes of your time

1:33

the impact planning canvas is best

1:35

illustrated with an example

1:38

professor dolores o'riordan director of

1:40

the ucd institute of food and health in

1:42

the school of agriculture and food

1:44

science

1:44

and her team have recently developed a

1:47

new health food technology

1:49

a savory snack that is high in protein

1:51

and fiber but low in fat and salt

1:54

if she and her team had completed the

1:55

canvas in advance of embarking on their

1:57

research project

1:58

it would have looked something like this

2:01

the first section is challenge here

2:05

you need to think about the challenges

2:07

in society that your research could help

2:08

address

2:10

for professor dolores o'riordan they are

2:13

many snacks are high in salt and

2:15

calories causing health issues

2:18

lack of on-the-go healthy snacks apart

2:20

from fruits and nuts

2:22

and increasing snacking habits amongst

2:25

children and young adults which is

2:26

contributing to obesity

2:29

next to response with the challenges

2:32

identified you can now set out how

2:34

specific elements of your research plan

2:37

responds to them for professor o'riordan

2:40

the responses are developing a snack

2:44

that is lower in salt

2:45

calories and fat and that is higher in

2:48

protein and fiber compared

2:50

to other so-called healthy snacks

2:53

and developing an innovative method to

2:55

make producing healthy snacks

2:57

easier beneficiaries

3:01

now that you've articulated the societal

3:03

challenges and your response to them

3:05

you can consider the beneficiaries of

3:07

your research

3:08

in many ways this is the most important

3:11

part of the canvas

3:13

beneficiaries are those who are affected

3:15

by your research in some way

3:17

either directly or indirectly

3:20

they are most often people organizations

3:23

or groups

3:24

but beneficiaries can also be animals

3:27

ecosystems or the environment it's

3:30

tempting to only think about

3:32

those who could be positively affected

3:33

by your research

3:35

but it's also important to identify

3:37

those who might be

3:38

disadvantaged by it so that you can

3:40

think of ways to reduce those negative

3:43

impacts

3:44

when identifying beneficiaries it can be

3:46

useful to group them

3:47

under subheadings like policymakers

3:50

industry

3:51

publics ngos and the healthcare system

3:55

and so on

3:56

in professor o'riordan's example some of

3:58

the beneficiaries might be

4:00

the general public the snacking

4:02

generation which are children and young

4:04

adults

4:05

and the parents of children these are

4:08

indirect beneficiaries

4:11

food and snack manufacturers these are

4:13

direct beneficiaries

4:16

and finally we have policy makers in

4:18

health and again these are

4:20

indirect beneficiaries when you are

4:22

filling in your own canvas

4:24

try to be as detailed as possible for

4:26

example identify specific

4:28

government departments and policy makers

4:30

or particular companies and

4:32

representative bodies

4:34

this will help when filling in other

4:36

parts of the canvas later

4:38

the unique value proposition

4:42

the previous section looked at who will

4:44

benefit from your research

4:45

this section addresses how they will

4:47

benefit

4:49

each beneficiary will derive different

4:51

value from your research

4:53

in this example the general public will

4:55

gain access to a healthier tastier snack

4:58

compared to other products and may

5:00

experience better health outcomes

5:03

food and snack manufacturers will be

5:05

able to bring a new product line to

5:07

market

5:07

offering them a competitive advantage

5:10

and

5:10

policy makers will benefit from

5:12

healthier outcomes in society

5:14

and reduced burden on the health care

5:16

system

5:17

engagement to increase your chances of

5:20

creating impact

5:21

you need to think about how you will

5:23

engage with beneficiaries

5:25

during your research program for

5:27

professor o'riordan's research

5:29

the following methods could be used

5:32

conducting food tests and tastings with

5:35

consumers

5:37

engaging with food and snack

5:38

manufacturers to assess interest

5:40

and understand manufacturing challenges

5:43
and finally involving policy makers in a
5:46
research advisory group
5:49
for your own research you might identify
5:52
dozens of potential beneficiaries
5:54
and you won't have time to engage with
5:56
them all so it's important to prioritize
6:00
work out who stands to benefit the most
6:02
from your research
6:03
and who has the most influence over your
6:05
ability to create
6:06
impact then think about the best way to
6:09
connect with those people
6:11
sometimes it's as simple as firing off
6:13
an email and arranging a meeting with
6:15
the right person
6:16

next we move to potential impact

6:20

you are now in a position to detail the

6:22

potential impact of your research

6:24

at ucd we classify societal impact under

6:28

these

6:28

eight terms

6:31

your research will likely have multiple

6:34

potential impacts

6:35

in different areas a good exercise is to

6:38

think about how one impact could lead to

6:40

another

6:42

funding agencies may classify impact in

6:45

a different way

6:46

or may have specific impact priorities

6:49

so if you're applying for funding it's

6:51

imperative that you align your impact

6:53

section

6:54

with the funders requirements for

6:57

professor o'riordan's project the

6:58

potential impacts are as follows

7:01

economic impact through licensing

7:03

intellectual property to an irish food

7:05

company who may go on to profit from

7:07

this

7:09

health impact to the general public via

7:11

improved health outcomes

7:12

from having access to a new healthy

7:14

snack

7:16

and technological impact through

7:18

improved manufacturing methods

7:21

evidence of impact it is important to

7:24

work out what evidence you need to

7:25

collect to demonstrate impact

7:27

and over what time frame

7:30

in general you should think about

7:32

collecting evidence of three things

7:35

the first is reach how widespread the

7:38

impacts are

7:40

the second significance how important

7:43

the impact is

7:44

for each beneficiary and attribution

7:48

showing how your research actually

7:49

contributed to the impact

7:52

this evidence can take many forms it

7:55

might include data on a company's

7:57

profits

7:58

references to your research in a policy

8:00

document or

8:01

testimonials from attendees at an event

8:03

inspired by your research

8:06

considering impact early in the project

8:08

will ensure that you have plenty of time

8:09

to collect the right evidence

8:12

back to our example economic impacts

8:15

could be evidenced

8:16

based on licensing income and jobs in

8:18

the manufacturing company that license

8:20

the ip

8:20

and this could be a five to ten year

8:23

time frame

8:24

health impacts can be evidenced via the

8:26

resulting health benefits of eating this

8:28

snack

8:29

versus less healthy snacks combined with

8:31

evidence

8:32

of the number of people consuming the

8:34

snack

8:35

and again this could be a five to ten

8:37

year time frame

8:39

we then move on to resources and project

8:41

team

8:42

in this section include information on

8:44

the resources

8:45

project team and collaborators you need

8:47

in order to successfully complete the

8:49

project and create

8:50

impact back to our example they are

8:55

specialized microwave to allow scale up

8:58

and

8:58

ucd research and innovation services

9:01

regarding

9:02

the ip protection and then we move to

9:05

the final section which is funding

9:08

the purpose of this section is to

9:09

indicate what funding will be obtained

9:11

in the longer term to support your

9:13

research program

9:14

for our example project options could be

9:18

the department of agriculture food and

9:20

marine

9:21

or enterprise ireland commercialization

9:24

funding

9:26

so that is the impact canvas

9:29

as we said before filling in your own

9:31

canvas can be done very quickly

9:34

it should really only take about 15 to

9:36

30 minutes of your time

9:38

so why not gather your research team

9:39

together and try it out today

English (auto-generated)

Impact journey

Take a look at some concrete examples of the impact journeys taken by researchers at UCD. Read more >

Communicate
How to write an effective impact section

Jump ahead to our Communicate section to learn what makes a compelling impact section in a funding proposal. Incorporate meaningful impact planning and give yourself the best chance of being funded.

Communication

When writing an impact section in a funding proposal, you're expected to predict the future impact of your work and map out a pathway toward it. If you're writing an impact case study, you will pull together evidence to tell a convincing story about how your work has made a

difference. These are two very different tasks. But the tools and resources on this page will help you write convincingly about impact, no matter where you are on your research journey.

In any case, your writing needs to be accessible and inclusive. So you should use simple, easy-to-understand language. Learn more with this (opens in a new window)guide by the Plain English Campaign. For more general tips on research communication, see our Promote Your Research website, as well as UCD Library's guide on (opens in a new window)using social media to communicate about research.

Promote Your Research

Using social media: an overview

There's no doubt, social media channels have become a vibrant part of the communications mix, even in academia. According to analysis by (opens in a new window)Rival IQ, the Higher Education sector is among the top three most dominant voices across all major platforms, and number one on Twitter and Instagram for engagement per post.
Smart Insights' (opens in a new window)social media research found that, by 2021, some 82% of internet users browse online sources and social media for news content, with 56% using social media specifically for news. By comparison, 64% of overall media consumers look to traditional broadcast media for their news and only 24% turn to print media. Moreover, all media research has observed a monumental increase in online and digital content consumption since the onset of the Covid-19 pandemic.

Choose your channel

There are many social media channels to choose from, so think about the audiences you're trying to reach and the impact you're trying to achieve. Find out which platforms your most important audiences use, and focus on those. For instance, Twitter is a great place for sharing news, information and

analysis with other academics, interested stakeholders and the public. See our guidance on how to find your audience and drive engagement on that platform. Facebook, by contrast, is a place where groups with shared interests build community spaces for longer-term engagement on specific topics, while LinkedIn offers similar spaces, and is focused on connecting with alumni and industry.

Don't forget, each social media platform has a different demographic landscape. Don't waste time trying to reach a younger crowd on Facebook, where you'll mostly encounter their parents. Instagram, YouTube and TikTok are all extremely popular with younger demographics, and while we don't explore the latter on this website, you can get an idea of what the channel has to offer by visiting the (opens in a new window)MyUCD TikTok account.
Using an engaged research approach can greatly increase your reach on these platforms. By working collaboratively with the community impacted by your research, your research network naturally increases beyond the academic sphere, and your community partners will be able to help you identify the social media channels most commonly used by non-academic audiences interested in your research topic.

In this section, see our tips and advice on how to make the most of the main platforms. For the complete novice, see the dedicated "getting started" guides for each of them below.

What and when to post

You should also consider which types of content are most effective on your chosen social media platforms, as each one has different benefits in terms of content sharing. For instance, images and embedded video attract a lot of engagement on Twitter and LinkedIn, but longer posts and articles perform better on LinkedIn than on other platforms. See our guidance on creating multimedia resources, including articles and blogs, for support with producing your content. Here's an example of a top research tweeter, @ParkinsonsUK, using Twitter media to share an infographic:

Apart from the obvious occasions – promoting a newly published paper, attending a conference, etc. – you can increase your following and engagement on social media by sharing other relevant content

that's of interest to your audiences, or when the social media world offers you the opportunity. Find out how to take advantage of these opportunities in our tailored guide for each platform, especially Twitter, and in the "calendars of awareness days" in the additional resources below. Here's @UniMelb using Twitter to encourage video views following an event:

So it's clear that the key to maximising your time and effort on social media depends on: (1) knowing your audience, (2) learning which platform is best to reach them, and (3) understanding the best ways to use your chosen platforms. In addition, here are a few general tips to keep you on the right path:

- Remember the tone **and** permanence of voice on social media. If you intend to use a Twitter or Facebook account to represent your research, then think carefully about how personal you're willing to be. While it's OK to post about non-work-related things, and many would advise you to use light and accessible language, it's ultimately up to you to work out your comfort levels on these channels. The least risky option is make sure that the tone of your content is consistent and remains a reflection of your work and not you personally.

- Don't post for the sake of it – plan ahead. Schedule weekly or monthly social media activity to promote the most relevant outcomes or outputs of your research so that you make time to prepare.

- Prepare! You have something worth talking about, so draft your posts with care, curate materials for sharing, find the users you want to tag, and seek out hashtags that will improve the reach of your post.

- Finally, see our guidance on mitigating risk online, including how to deal with negativity and create positive engagement on any social media channel or interactive online space.

Additional resources

Below you will find some additional materials to help you use social media and create content for your platforms of choice. This includes links to UCD-owned and online image resources, "getting started" guides for each of the major social media channels, calendars of "awareness days" with official

hashtags for social media, and a framework for good science communication from the (opens in a new window)Quest Science Communication Project.

Mitigating risk online

Social media and other interactive spaces on the internet have profoundly changed the way we communicate, share opinions and receive information. While these channels present real opportunities, they also come with some risk. For example, you might come across harmful behaviour, you might make an ill-judged post that risks your reputation, your research might be misinterpreted or used it ways that you didn't intend, or you might run up against issues around confidentiality or copyright.

But avoiding social media altogether probably isn't the answer (and can even carry its own reputational risks). Use the advice on this page to strike a balance between the pros and cons of online activity, and learn how to deal with any issues that arise.

Work out your risk appetite

Consider weighing up the risks and benefits of your digital footprint. (opens in a new window)This article from Fast Track Impact will help you analyse your online presence and find a level of activity that you're comfortable with.

Deal with toxic behaviour

Unfortunately, the openness and anonymity of online spaces can enable highly problematic conduct, including abuse, targeted campaigns of aggression, trolling and doxxing (harassment through finding and posting a user's personal information), which is very distressing for the target. Safety, security and wellbeing come first, so if you experience any abuse or hate speech online:

1. Remove yourself from the situation and do not engage
2. Immediately block and report the perpetrator(s)
3. Delete abusive or inappropriate comments
4. Inform your line manager in the university or your Head of School
5. Contact the police if necessary

Remember, don’t feed the trolls! Their goal is your reaction, so it's best not to respond.

Create positive experiences

That said, it's fine to respond to negative comments on your posts, videos or online articles. But keep the following in mind:

- Engage in a positive way, keeping your tone professional and courteous
- Offer more information, such as links to available journal articles with plain-English summaries
- Answer questions
- Show empathy

Often this type of engagement can turn an initially negative interaction into a positive one. However, stop responding if the exchange degrades into an unproductive conversation.

Whether on a social media platform or the comments section of a website, don’t find yourself defending or stressing a position you didn’t intend to focus on to begin with. Furthermore, always remember snippets of what you say can be captured and copied out of context, repeated and shared.

Fix your mistakes

What if you publish an unfortunate post or comment yourself?

- Don't delay: unambiguously acknowledge the mistake
- Take a screenshot of your original post or comment and refer to it with a comment to address the concerns raised about it, then delete the original
- Apologise for any harm caused, clarify what you meant, but be very clear that you recognise the error of judgement in how you expressed it the first time
- Say how you're going to learn from the mistake and improve

In general, think about your presence online and how language and perceptions have changed over time.

Be aware of UCD policy

Some groups are disproportionately affected by online negativity. Be aware of the wide range of experiences that people have online. And think about underrepresented voices and perspectives – is your work and your work environment inclusive in practice and communication? If not, try to correct that. Visit UCD Equality, Diversity and Inclusion group's Dignity and Respect resources to learn more about the university's policies, tools and support contacts.

Familiarise yourself with UCD's Acceptable Use Policy, including the section on Unacceptable Online Behaviour which outlines specific examples of unacceptable conduct, such as engaging in "any form of online bullying, harassment or other online behaviour, which is illegal or intentionally offends staff, students, other users or brings the reputation of the University into disrepute."

Consider formal training

If you would like to access or arrange formal training in the use of social media, there are many experts who specialise in communication and engagement in the Higher Education sector. Look out for social media training with UCD Library here.

Twitter

Home
Promote online
Twitter

Twitter has distinguished itself among social media platforms as the place to share news and opinion. It is especially suited to promoting research and has many useful features for finding and engaging with your audiences.

According to data from (opens in a new window)Rival IQ, posts from the Higher Education sector enjoy the highest engagement rates on Twitter, particularly with video (which can be embedded in tweets) and interesting status updates – more so than mere links and images. Our section on creating multimedia resources can help you make these assets to share online. Watch the tutorial videos on this page for technical guides to using Twitter.
See our guidance on mitigating risk online, including how to deal with negativity and create positive engagement, and see below for strategies to succeed on Twitter.

Transcript
0:00
so what is the difference between a
0:02
tweet and a mention
0:04
when we tweet
0:06

we are publishing a post that will

0:08

appear in the timelines of all twitter

0:10

users who follow us on twitter us in

0:13

this instance being ucd research

0:16

when we decide

0:17

to mention

0:19

another twitter user

0:21

such as ucd library

0:24

this mention of ucd library

0:27

will now appear

0:28

in the notifications of ucd library on

0:31

twitter and also in the timelines of

0:33

followers of ucd library

0:35

as well as the timelines of followers of

0:37

ucd research

0:40

however

0:42

if we were to tweet directly at ucd

0:44

library

0:46

like so

0:48

this mention

0:49

will only be visible to twitter users

0:52

who follow both ucd library and ucd

0:55

research on twitter but not to the

0:57

followers of either who only follow one

0:59

or the other

1:01

in order to make it visible to all again

1:03

you must add words or even one character

1:06

like so in front of the twitter handle

1:08

and now it will be visible in all

1:10

timelines again

1:13

watch our next tutorial video to learn

1:15

more about how to increase visibility

1:18

through the use of tagging and hashtags

English (auto-generated)

Facebook

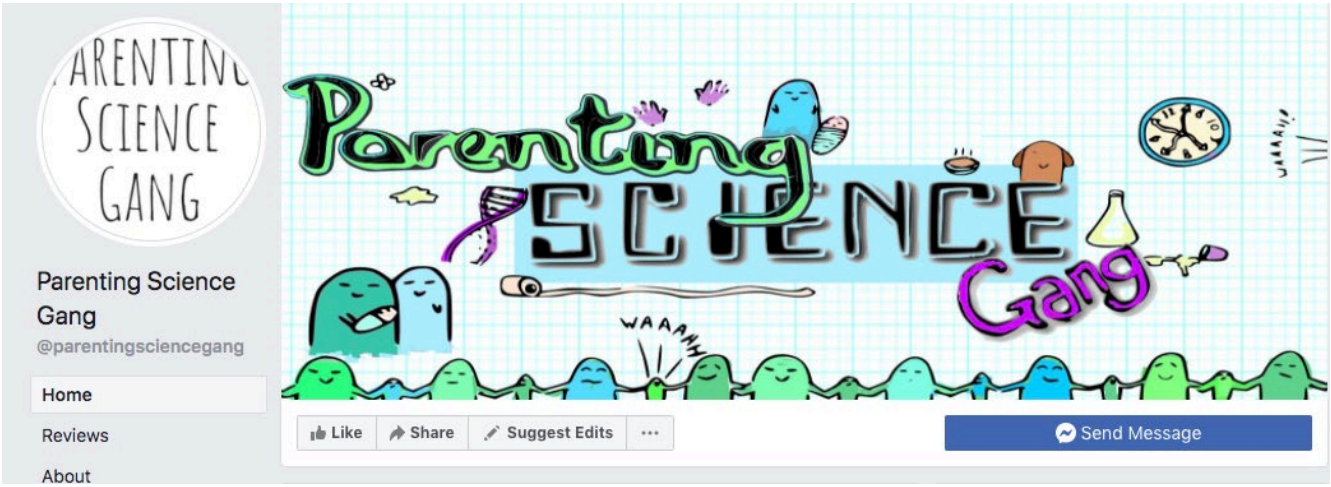
Who's Facebook for?

Even though Facebook has waned in terms of growth and relevance over the last few years, it remains the biggest social media platform in the world, with more than 2.8 billion users.

Far less relevant as a source of news and information, a Facebook page does offer an informal alternative to having a website that many internet users find acceptable and credible. Most of all, Facebook is still a good platform for community-building and engagement – so if that is your goal or one of the targets of your messaging, then Facebook might be worthwhile for you.

Types of Facebook profile

Facebook offers three profile options: a personal Facebook profile, a Facebook page (for your project, centre, business, etc., like the (opens in a new window)Patient Voice in Cancer Research example above) and a Facebook group (community page). You must have a personal profile in order to create or participate in the other two, but Facebook groups offer potentially the most opportunity for research engagement and promotion.



Facebook groups, like the (opens in a new window)Parenting Science Gang example above, are community-led, and the content is generated by members of the group, as opposed to just the page owner. You could engage with members of a particular group by simply joining and introducing yourself to the community. These interactions should be authentic and reciprocal, sharing things that will genuinely interest the group and responding to posts by other members. Once you have established a relationship with a community, you can:

- Generate further research topics or questions through dialogue
- Share outputs relevant to your discussions with the group
- Recruit participants to research surveys (taking care to adhere to UCD Guidelines for Recruiting Research Participants)

Pages, by comparison, allow you to build a community of followers with whom you can freely communicate about your research and related events, although page followers tend to share and interact a lot less than group members.

Even if you're not active on it often, it can be good to have a Facebook profile or page so that you and your research are visible on the platform – if only to claim the space and have a presence where it's expected.

LinkedIn

What is LinkedIn?

LinkedIn stands out among social networks for its focus on professional or business-to-business content – users generally don't share personal content or opinions. While it used to be considered useful only for job- and personnel-hunting, it has grown and evolved in recent years to enable more diverse network-building.

On LinkedIn, you can have a personal profile, a company page (suitable for a group, centre, project, etc.) or a LinkedIn group. A group is defined by LinkedIn as a "hub which provides a place for professionals in the same industry or with similar interests to share content, find answers, post and view jobs, make business contacts, and establish themselves as industry experts."

See (opens in a new window)UCD Institute for Discovery on LinkedIn for some examples of good content on this platform:

How to use it

Like Facebook, you have to have a personal profile in order to participate in or create either of the other two. LinkedIn has published a concise blog on (opens in a new window)how to create the best LinkedIn Profile.
The principal advantage of this platform is that you're guaranteed an audience, especially from certain industries, as well as peers connected with your own and other institutions. By including the university you graduated from, you can connect with all the alumni from that institution, so it offers many opportunities to enhance your network.

Like Twitter and Instagram, LinkedIn uses hashtags to gather content about particular topics of interest, and also to suggest posts to users from contacts in their network.

The platform is adept at pulling previews from websites or YouTube videos you link to in your posts, but you can also attach (and tag) images and videos just as on Twitter. Unlike Twitter, you are not limited to 280 characters in your posts, so you can write much more detailed introductions to your outputs and articles, and tag as many other users as you like (without breaching the etiquette referred to in our sections on Facebook and Twitter). In general, you can post profile pieces and articles of length on LinkedIn profiles, pages and groups in a way that's not possible or desirable on other social media platforms.

For further examples of how to promote research on LinkedIn, visit the (opens in a new window)UCD Research LinkedIn page.

Instagram

The image-based social media platform

Although Higher Education is also the number one sector on Instagram for engagement per post (just as on Twitter), this activity is largely driven by students and student-focused content, rather than academics and their research.

Still, it is the world's third biggest social media platform after Facebook and YouTube (fourth if you include the messaging service WhatsApp) and is especially useful if you need to connect with students and younger audiences. It is also a very functional platform, offering different features for sharing different content formats and tools for engaging with followers.

It may prove more useful for science communication and outreach than for promoting your research, but for certain demographics it is good for raising your profile, community building and gaining feedback – particularly through quirky and entertaining content.

While Twitter is based around posting status updates, Instagram is fundamentally an image- and video-based platform. Like Twitter and LinkedIn, it uses hashtags to help users find content. But its other features are potentially the most valuable for research communication. As this is not generally a channel used for promoting research, we only provide a quick list of Instagram's tools with some examples.

Types of content

The number of ways that you can share information on Instagram – from posts to stories to reels – might be overwhelming at first. New features come and go all the time, but here's a breakdown of a few of the most prominent.

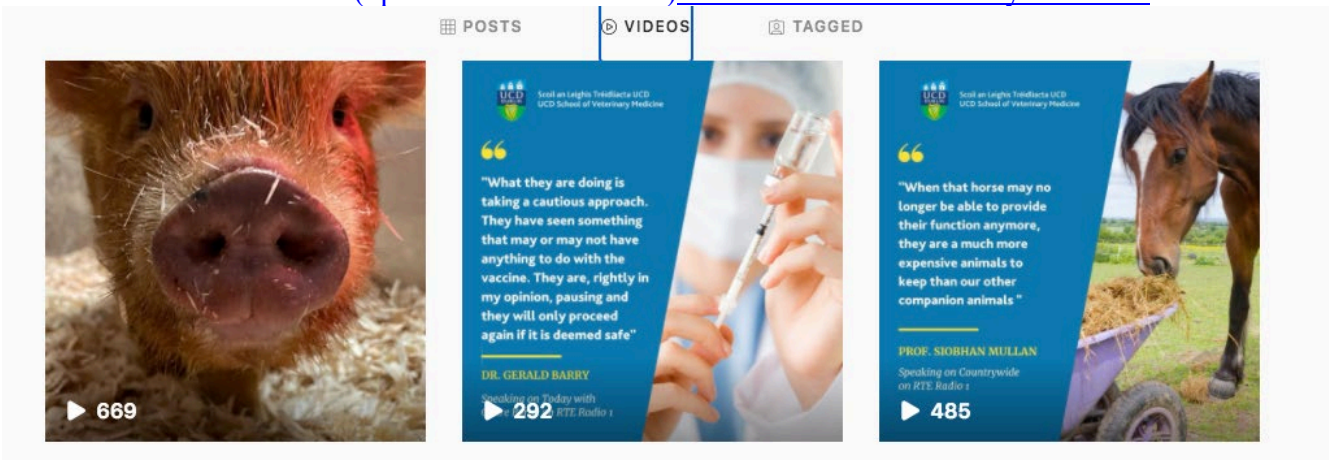
Posts

The simplest way to share an image or video clip is with a post. This is where Instagram has its roots, and it remains one of the most popular ways of using the platform. A post can consist of a single photo

or video, or several in a "carousel". Here's an example of a single-image post from (opens in a new window)UCD School of Public Health, Physiotherapy and Sports Science:

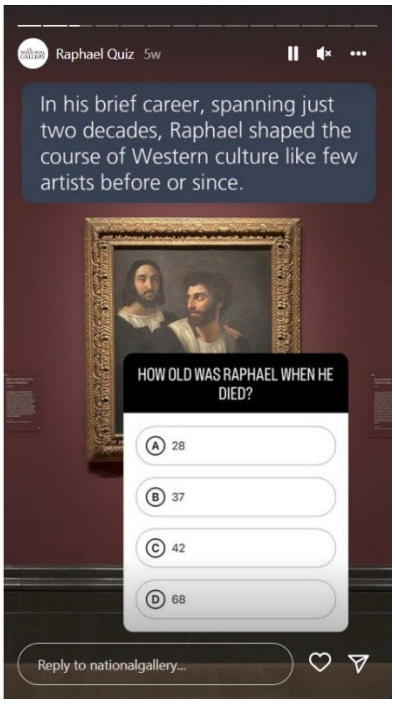
(opens in a new window)A post shared by UCD School PHPSS (@ucd_sphpss)

Any videos that you post will be aggregated under the "video" tab on your profile. Here's what that video tab looks like for the (opens in a new window)UCD School of Veterinary Medicine:



Stories

When you post a photo or a video as a "story", it is added to a sequential feed and people will be able to view it for 24 hours (a model very similar to Snapchat's). After that, it disappears. Because of this, stories tend to be more casual than standard posts, with users less likely to spend time curating them. They are often embellished with text, filters and special effects. Stories can also be particularly interactive. For example, you can include games, polls and quizzes in your stories, as seen in examples from the UK National Trust and National Gallery below. (opens in a new window)Learn more about Instagram Stories >

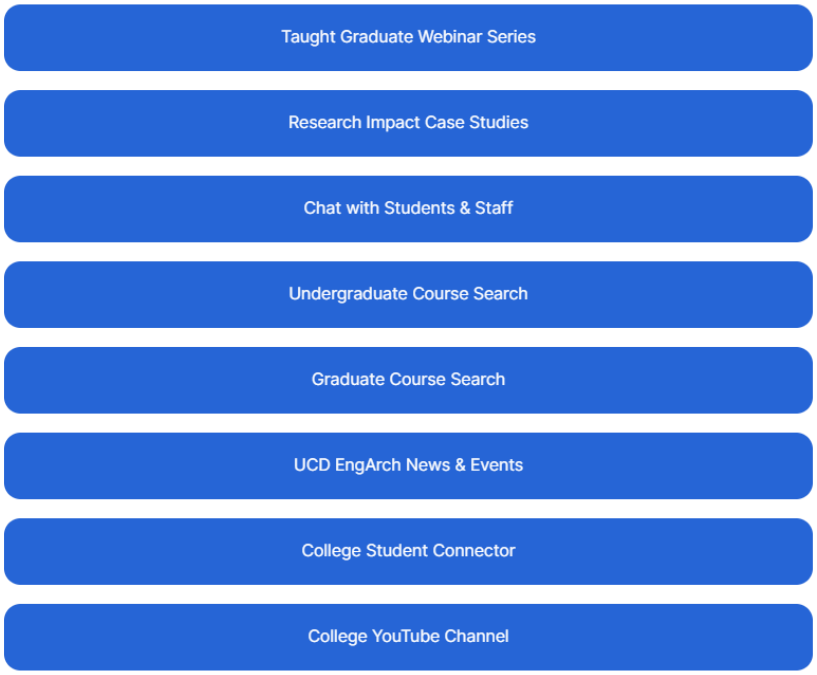


Reels

A more recent feature is Instagram's (opens in a new window)Reels, similar to TikTok, where you can record and share short videos. This is much more focused on reaching a new audience, rather than sharing posts with your followers.


9:41
Audio
Speed
Effects
Timer
STORY
REELS


9:41
Search
IGTV
Shop
Style
Comics
Reels



Direct attention elsewhere

You can use your presence on Instagram to draw attention to your profiles on other channels that are better suited to sharing research outputs, by using (opens in a new window)Link Tree in your Instagram bio. This app creates a simple landing page where you can add multiple links to all your other profiles or websites, so that people can discover your more serious research-related content. Beside is an example from (opens in a new window)UCD Engineering & Architecture.

YouTube

YouTube Premieres

This feature lets creators schedule a time and date when they want an uploaded video to go live. It then generates a shareable, public "watch page" that acts as a placeholder until the video begins at the appointed time.

Premieres offers a handy cheat for hosting online "events". If you prerecord your webinar, interviews or panel talk over Zoom, users will still have a similar viewing experience as though it were live. You have the option of including live chat on Premieres, or you can invite viewers to leave comments and questions in the comments section below the video player – which provides a permanent record of engagement for the event.

Learn about how to respond to negative comments and create positive experiences in interactive spaces online.

Driving engagement

YouTube Live

Live streaming on YouTube can be a more accessible, less formal alternative to hosting a Zoom event. This feature offers users tools to help manage their live stream and interact with viewers in real time.

Creators, as YouTube calls them, can stream via webcam, mobile or by "encoder streaming" (using external software or hardware that integrates with YouTube). Webcam and mobile are the simplest and best options for beginners.

(opens in a new window)Encoder streaming requires more advanced know-how but it enables complex live streams with more features:

- Sharing your screen during the live stream
- Connecting to external audio and video hardware
- Managing an advanced live stream production, for instance using multiple cameras and microphones

Expert streamers recommend software apps like (opens in a new window)Restream and (opens in a new window)StreamYard, which are paid services that offer a professional experience for the viewer and user. YouTube offers its own recommendations for both paid and open-source solutions. For this, and chapter and verse on how it all works, visit YouTube's own (opens in a new window)online guide and (opens in a new window)digital events playbook.

One of the greatest advantages of using YouTube Live with a good streaming app is that these apps can enable multi-streaming, allowing you to go live simultaneously on up to 30 different social platforms, including Twitter, Facebook, Twitch and LinkedIn. YouTube itself enables you to (opens in a new window)promote your event during the live stream, including creating highlight clips while it's still live.

As YouTube has a live chat feature to accompany live streaming, it also has a comprehensive (opens in a new window)set of tools to allow you to moderate and control the chat, in the interest of safety and wellbeing.

Tip: Remember, don’t just broadcast, ask questions and invite responses, either in your channel's comments section or by following the link to your Twitter page.

Scholarly networks

Promote online Scholarly networks

Online networks – like (opens in a new window)ResearchGate and (opens in a new window)Academia.edu, and of course LinkedIn – can be powerful tools for building your research profile, reaching a wider audience, opening opportunities for collaboration, and helping your research to get noticed.

Typically, ResearchGate tends to be used more by those in STEM disciplines and Academia.edu more by those in Arts, Humanities and Social Sciences. Both networks allow you to create a profile, list your publications, and connect with other researchers that you find relevant.

Commercial scholarly networks like ResearchGate are not the same as an open access repository, such as (opens in a new window)Research Repository UCD. Posting the full text of your published work on these commercial networking sites may be in breach of some publishers' copyright and licensing agreements, so be sure to confirm what is permitted before you share your work.

Other networks you can explore include:

- (opens in a new window)Google Scholar Citations allows you as a researcher to create your own Google Scholar profile to increase your visibility and track your publications' citations. You can also make your profile public, so that it appears at the top of the Google Scholar results page when people search for your name.
- (opens in a new window)Humanities Commons is a project of the office of scholarly communication at the Modern Language Association, and is a non-profit network where humanities scholars can create a professional profile, discuss common interests, develop new publications, and share their work.
- (opens in a new window)ScienceOpen is a professional networking platform for you to enhance your research in the open, make an impact, and receive credit for it.
- (opens in a new window)Social Science Research Network (SSRN) is a website for disseminating scholarly research in the social sciences and humanities. Some publications are free of charge, while others are available for a fee.
- (opens in a new window)Mendeley is another free application for managing references. It is very popular with LaTeX users, and it enables collaboration in public or private groups. Unless set to private, a Mendeley library can be seen by other users. Therefore, the service is also a discovering tool that allows users to upload personal profiles, publication list, and so on.

As you can see, different networks have different features, and some are tailored to specific research areas, so explore the various options and pick the right network for your research and discipline. It's worth noting that networking sites are commercial organisations who may re-use or sell your data for profit, so always ensure you understand and are comfortable with their terms and conditions before signing up.

Stand out from the crowd

Over the past decade, researchers around the world published more than 30 million outputs. Without some help, it can be difficult for your research to stand out, no matter how excellent it is.

But there are simple steps you can take – both online and offline – to get your best outputs noticed by the right people. The advice on this site can help you to build your profile as a researcher, advance your career, increase your citations, write more compelling funding applications, find future collaborators, and share your findings.

Not all information will be relevant to you amid your other time commitments, but we hope that some will be helpful as you seek to give your research the best chance of finding an audience and making a difference.

Increase your citations

Citations remain an important metric for researchers. And the tips found across this website can help ensure other researchers find, use and cite your outputs.

We've also developed a specific guide with practical steps to help you increase your citations and make a difference in your field.

Increase the impact of your research

Get your outputs ready

Title

It's important to write a good title and abstract for your paper, as this will help ensure that other researchers can find and engage with your work. To give a good first impression, your title should be simple, direct, interesting and informative. It should have enough detail to entice people to read the abstract and then go on to read your full paper.

Several publishers give advice on how to write a great title. Check out some of these for more information:

- (opens in a new window)PLOS
- (opens in a new window)Wiley
- (opens in a new window)Springer

Abstract

The main purpose of the abstract is to outline and illustrate the content of your paper, allowing the reader to discern if your paper interests them. A good abstract works as a form of advertisement; some researchers may only read your abstract and as such it must be able to present your research effectively.

In recent years, some authors have also been asked to submit a “graphical abstract” or “visual abstract”. This is a single image that clearly represents of the main findings of your research, and gives readers a summary of the paper’s content at a glance. You can use tools like Microsoft Powerpoint and (opens in a new window)Canva to create graphical abstracts. Further tips and advice are available in (opens in a new window)this guide from The Microbiology Society, (opens in a new window)this useful article, and in our section on creating multimedia resources.
Video abstracts are also a popular way of presenting key findings in an engaging, visual way. Help and advice on how to plan and record a video abstract are available in (opens in a new window)this guide from the BMJ, as well as in our page on producing videos.

Keywords (for academic search optimisation)

When writing your title and abstract, be sure to include any significant terms and keywords from your text. When picking terms, think about what words your reader might type into a search engine to find your research. The more relevant keywords that your title and abstract contain, the higher your paper will rank in search results for those terms.

Similarly, if a publisher specifically asks you to provide keywords when submitting your manuscript, include these relevant terms to help others find your research (and to assist in the selection of appropriate reviewers).

Note that some fields have standardised keywords, and using these can help searchability. For example, the (opens in a new window)Medical Subject Headings (MeSH) thesaurus is a hierarchical vocabulary produced by the National Library of Medicine.
(opens in a new window)Click here to read some more detailed tips on titles, abstracts and keywords from Springer Nature.

Authors and co-authors

When submitting manuscripts, you should use a consistent name and your ORCID ID where appropriate, ensuring your outputs are correctly attributed. It is important to establish your author name and use that specific name consistently as this helps readers (and bibliometrics databases) find your research. For example, if you choose to include the first letter of your middle name, you should consistently use it in your future research as well. This will help you cut down on the number of duplicate researcher profiles you might have, which can affect your bibliometric score by dividing the metrics associated with different articles across multiple profiles.

If your paper has multiple contributors, consider who will be listed as an author and the order in which you list them. It's important to define and agree on what constitutes a significant contribution for each paper, based on the conventions and norms of your discipline, and observing the UCD Authorship Policy. Make use of the (opens in a new window)Contributor Roles Taxonomy to acknowledge all contributions.

Affiliation details

Use a standardised institutional affiliation and address – e.g., University College Dublin, School of Mathematics and Statistics, Dublin, Ireland – to ensure your papers are correctly affiliated and can be tracked and monitored accurately.

In addition to your affiliation, you should also acknowledge any funding you may have received. See your grant agreement for specific requirements, and what text you need to include.

Create your ORCID ID

Using ORCID

(opens in a new window)ORCID (Open Researcher & Contributor ID) is a unique, persistent digital ID number that distinguishes you from every other researcher and contributor, and helps to link all your professional activities and publications. ORCID is a non-profit, community-driven organisation and is available free of charge. You can use your ORCID account to record and manage your research outputs and activities. Sharing your ORCID profile link can help promote your research by providing a comprehensive picture of your research outputs, activities and researcher profile.
If you happen to have (opens in a new window)more than one account, you should remove any duplicate accounts and consolidate your outputs and activities into your preferred profile.

LibGuide! See UCD Library's (opens in a new window)ORCID Libguide for more information. You can register for an ORCID (opens in a new window)here.

Linking to your UCD profile

Using ORCID helps increase the visibility of your research, by ensuring that you receive credit for your work and contributions, and that your research outputs are correctly attributed to you. ORCID integrates with the systems of many publishers, databases, and funders, as well as UCD's RMS Profiles, helping you to collate, identify, and track your research outputs and other activities across platforms.

As UCD is an ORCID Member Organisation, UCD researchers can link their RMS profile with their ORCID to identify, import and export their publications and outputs. Configuring ORCID in RMS Profiles is quick and easy. Simply click on the "Add your ORCID ID" link on the homepage:

Choose the right outlet

Things to consider

Choosing where to publish your work is one of the most important decisions you will make regarding the dissemination of your research. You should target the top journals that are relevant to your work, and that are likely to be read and cited by other researchers working in your field. Below are various factors you might consider when choosing journals and publishers:

Peer advice	Discuss where to publish with senior colleagues or mentors.
Reputation	Check discipline-specific lists of top journals and publishers, such as the **(opens in a new windo** **Channel List** (Level 2) or **(opens in a new window)FT50** and **(opens in a new window)ABS** lis Does the journal/publisher have a strong reputation in your discipline? Some large publishers, like online tools to find an appropriate journal for your work: • **(opens in a new window)Elsevier** • **(opens in a new window)Springer** • **(opens in a new window)Taylor and Francis** • **(opens in a new window)Wiley** Again, your colleagues or mentors may have advice on which outlets are considered prestigious in
Relevance	Consider your key references and the most highly cited papers and authors in your area, and look a they appear. When considering a journal, ask yourself how well your research fits with their ethos
Scope	Look at journal scope and editorial board. Is the journal broad in scope or is it read by a specialist reach and circulation does it have?
Peer review	Check that the journal bases its publication decisions on rigorous peer review. Peer review is cons from the research community.
Turnaround times	Check the journal's publication turnaround times, especially if speedy publishing is important to y in fast-moving disciplines, publishing quickly is an important way of ensuring their research findi

Open access	Ensure that the journal is open access as this helps to increase the visibility and discoverability of **a new window)DOAJ (Directory of Open Access Journals)** provides a list of open access journ on **open access** to learn more.
Cost	Check if the journal will charge you for publishing your work. UCD Library and IReL have nego **new window)Open Access Publishing Agreements** with key scholarly publishers to ensure that for publishing. A full list of all the journals included in the agreements can be found **(opens in a n**
Indexing	Check that the journal is indexed in major bibliometric databases, such as **(opens in a new windo in a new window)Web of Science**.
Promotion of outputs	Some journals/publishers put a lot of work into promoting outputs. They might write plain-Englis research they publish, create graphical abstracts, or be especially active on social media.
Online attention	You can use **Altmetric Explorer** to find out which journals publish research that receives the mos
Other factors	Other factors to check are acceptance rates (which can vary from 5% - 95%), rejection rates, the p co-authors' preferences, and other terms and conditions.

Avoid predatory journals and publishers

Predatory publishing is an exploitative academic publishing business model that involves charging publication fees to authors without checking articles for quality and legitimacy, and without providing editorial and publishing services that legitimate academic journals provide.

(opens in a new window)Think Check Submit is a website that can help you find a trusted publisher for your research. You can also use (opens in a new window)Think Check Attend to judge the legitimacy of conferences.

Publish open access

What is it?

Open access (OA) means that your electronic scholarly research outputs are made freely available on the web to all, with no or limited license restrictions. By making your outputs available in this way, you can increase their reach and impact.

Some researchers have concerns that OA journals and publishing can be of a lesser quality. However, reputable OA publishers operate with the same quality standards and peer-review processes as traditional subscription publishers (it is always advisable to verify the credentials of any publisher, open access or otherwise). When publishing open access, you can also retain control over re-use of your work by choosing a (opens in a new window)creative commons licence that is appropriate for your research and discipline, preventing modification of the original work and ensuring it is only reused in its original form.
Many funders now require that you publish open access, but the OA world can be tricky to navigate. The information below will help you make sense of it. More support around OA is available via (opens in a new window)UCD Library. Information on the national transition to an open research environment is available from the National Open Research Forum ((opens in a new window)NORF).

The benefits of open access

The potential readership for OA articles is far greater than for publications where the full text is restricted to subscribers, so (opens in a new window)open access articles generally receive higher citation rates and significantly more engagement in terms of downloads and views. But there are many other benefits to publishing OA, beyond exposure and citations:

- Your research is accessible to decision-makers outside the academic community, making it more likely to influence policy and practice.
- The public can read and use your findings, and taxpayers get access to the research they helped to fund.

- Your research is compliant with grant rules, since OA is becoming increasingly mandated by funding agencies. This is especially true in light of (opens in a new window)Plan S, an initiative for OA publishing launched by a European consortium of research agencies and funders (including Science Foundation Ireland). For more information on how to adhere to different funders' policies around publication requirements, read (opens in a new window)this Libguide. Publishing your research through OA when it is not mandatory can also benefit you as a researcher in the future: it shows future employers and funding bodies that you are keeping up-to-date with the OA movement and will likely comply with their OA policies.

- Researchers in countries or institutions where many subscription journals are not available can access and use your work.

Routes to open access publishing

UCD researchers can make their outputs open access in a number of ways:

- (opens in a new window)UCD Library's Open Access Publishing Agreements. UCD Library has agreements with a large number of publishers which allow UCD researchers to publish OA at no cost to the author.

- Other OA journals. Some journals charge a fee called an Article Processing Charge (APC) to cover publishing costs – this charge may be covered by your funder. Some OA journals and funder publishing platforms (like (opens in a new window)Open Research Europe) do not charge OA fees as they are funded by institutions, societies and libraries.

- Self-archiving ("Green" open access). If you publish behind a paywall, you can also "self-archive" the author's accepted manuscript (AAM) version of your publications in an open access repository at no cost. In other words, in addition to publishing in traditional subscription journals, you can deposit an author-accepted manuscript version of your articles in an open access or institutional repository, such as (opens in a new window)Research Repository UCD. In some cases, an embargo period may be applied by the publisher.

For more details on routes to open access, and funder requirements, see (opens in a new window)this Libguide.

Open access databases

There are many OA databases. Here are a couple of key ones to explore:

- DOAJ: (opens in a new window)Directory of Open Access Journals. An online directory that indexes and provides access to high-quality, open access, peer-reviewed journals.
- DOAB: (opens in a new window)Directory of Open Access Books. A directory of academic peer-reviewed books from many publishers.

Pre-print archives

The option to publish pre-prints allows you to get feedback and insight on your research from peers, which may help you make revisions when preparing articles for submission. Sharing your work at an early stage can also help promote your research by increasing visibility. Here are some notable pre-print archives:

- (opens in a new window)**ArXiv**. Open access to over 900,000 e-prints in Physics, Mathematics, Computer Science, Quantitative Biology, Quantitative Finance and Statistics.
- (opens in a new window)**SocArXiv**. An open archive of the social sciences, providing a free, non-profit, open access platform for social scientists to upload working papers, pre-prints, and published papers, with the option to link data and code.
- **(opens in a new window)bioRxiv**. A free online archive and distribution service for unpublished pre-prints in the life sciences. It's operated by Cold Spring Harbor Laboratory, a not-for-profit research and educational institution.
- **(opens in a new window)MedRxiv**. A free online archive and distribution server for preprints in the medical, clinical, and related health sciences.
- (opens in a new window)**OSF Preprints**. A free, open-source service of the Center for Open Science, providing a platform for many disciplinary pre-print services including AgriXiv, PsyArXiv and SportRxiv.

Share your data

Sharing your research data is not only a requirement of many funders, journals, and institutions; it is also a great way to promote your research. For more information on your obligations see UCD's Research Data Management Policy.

Why share your data

Researchers devote a great deal of physical and intellectual effort to collect, manage, collate, and analyse their data before publishing their results. Many of these datasets have significant value beyond the original research, and sharing data can be beneficial in a number of ways:

- Data sharing leads to increased transparency and overall robustness of academic scholarship. Your findings can be replicated and compared with other studies.
- Data sharing creates opportunities for follow-on research and collaboration.
- Your data may be used by others, enhancing the visibility and impact of your research and allowing you to get additional credit and recognition for your work
- You may receive more citations on your publications. A (opens in a new window)recent study found that a citation advantage of up to 25% when publications are linked to research data via a repository or other permanent identifier.

What to share

Following the principle that research data should be “as open as possible, as closed as necessary’”, any data resulting from your research project should be shared where possible. At a minimum, you should take measures to ensure open access to the data needed to validate the results presented in your publications. This supports the reproducibility of your research as well as the reuse of your data.

If you're working with data that are personal or sensitive, ensure you consider data protection and consent to share the data. You should do this at the beginning of the project. Detailed guidance can be found on the UCD GDPR website.

Where to share

Research data should be submitted to a discipline-specific, community-recognised repository where possible, or to a general, multidisciplinary repository if no suitable discipline-specific repository is available. For more information see UCD Library's Information Sheet on (opens in a new window)Where to Submit Data.

Promote your data

Below are some tips on how to promote your data and increase the visibility of your research:

- Choose an open licence for your data. The easier it is for other researchers to access your data, the more likely they are to be reused, boosting your research reputation. For example, Horizon Europe recommends Creative Commons Attribution International Public License (CC BY) or Creative Commons Public Domain Dedication (CC 0), in line with the principle "as open as possible as closed as necessary".
- Always cite your data. By linking your data to your relevant publications, you will create more visibility for all your research outputs.
- Consider publishing a data paper. A growing number of journals accept and publish data papers, in which the data themselves are described and methodologies discussed. Data Journals are peer-reviewed journals which specialise in these types of publications.
- Teach with your dataset. Consider preparing teaching materials to complement your dataset, which you and other lecturers can use.

Identify your audience

To promote your research effectively, it is crucial to identify, know and prioritise your target audiences, so that you can work out the best way to communicate with the right people. But first, you need to identify your strongest outputs and think about how to properly acknowledge your partners and collaborators.

Develop your message

Learn how to refine your message for each audience, write a lay summary to convey the essence of your research to a non-specialist audience, and craft tailored messages that reflect the interests and needs of different groups.

Write a plain-English summary of your research

Use this guide to describe your research in plain-English, so that non-specialists can understand why you've done the research, what methods you used, what the results were, and what might happen next. See more >

Write a plain-English summary of your research

Home
Develop
Write a plain-English summary of your research

Use this guide to convey the essence of your research in plain-English, so that non-specialists can understand why you did the research, what methods you used, and what the results were.

Honing this skill will encourage a wider audience to engage with your work. Plain-English summaries are incredibly useful if you're communicating with journalists or helping pull together a press release. They also make your tweets, blogs and websites more compelling, not to mention more accessible. In addition, when you apply for funding, some funding agencies expect you to write a plain-English summary of your proposed research.

Many funders now publish plain-English summaries alongside their research articles. Take a look at some of these for inspiration. The biomedical and life sciences publisher eLife, for example, share plain-English "(opens in a new window)digests" of research. You can find more information about plain English through the (opens in a new window)National Adult Literacy Agency.

Structure your summary

Don't just throw information at the page; find a coherent way to structure your summary. An obvious approach would be to start with background information, then describe your research and findings, and finally outline any next steps. This will give you three or four easy paragraphs to write, like so:

1. Put it in context

Begin by giving the background needed so that readers can understand your work. For example, if you're researching a particular hormone, you could explain what hormones are, what they do in the body, and why this particular hormone is interesting. Or if, say, your research is on a certain artist, you might explain who they were, the period of art history they belonged to, and why they are notable. Asking yourself some of these questions might help here:

- What's happening in the world that makes your research important?
- What other work is it building on?
- Did anyone ask you to do this? Why?
- Are there any public misconceptions in your research area that you can help clear up here?

The first sentence should include something the reader can relate to. This can be anything: an animal, a body part, a period in history, a disease, a group of people. Don't start by writing about amylase, for example; introduce enzymes in general before getting more specific.

Don't be afraid of inserting yourself as a protagonist. Depending on where you plan on using the summary, you could write a first-person narrative, giving more of your own background, and explaining your interest in the topic.

In any case, consider ending the background section with a line or two that introduces the questions addressed by your research. In other words, what are the knowledge gaps?

2. Describe your research

Here's where you write about what you did and what you found. You don't need to detail every single finding, however, just the most important ones (those in your abstract).

Remember to describe how you conducted your research — what methods did you use? Any experiments? In some technical disciplines, this can be very difficult, but you should be able to come up with a sentence or two outlining any techniques at a high level.

Don't shy away from capturing your feelings here as well. How did the findings make you feel? Was there anything surprising, exciting or concerning about them?

3. Think about next steps

Consider ending your summary with a sentence or two on what might happen next. Is this research paving the way for further research in an interesting area? Is it likely to have some kind of impact on people's lives? If so, what are you doing to help that impact come about? Will it help other academics in different disciplines conduct their research?

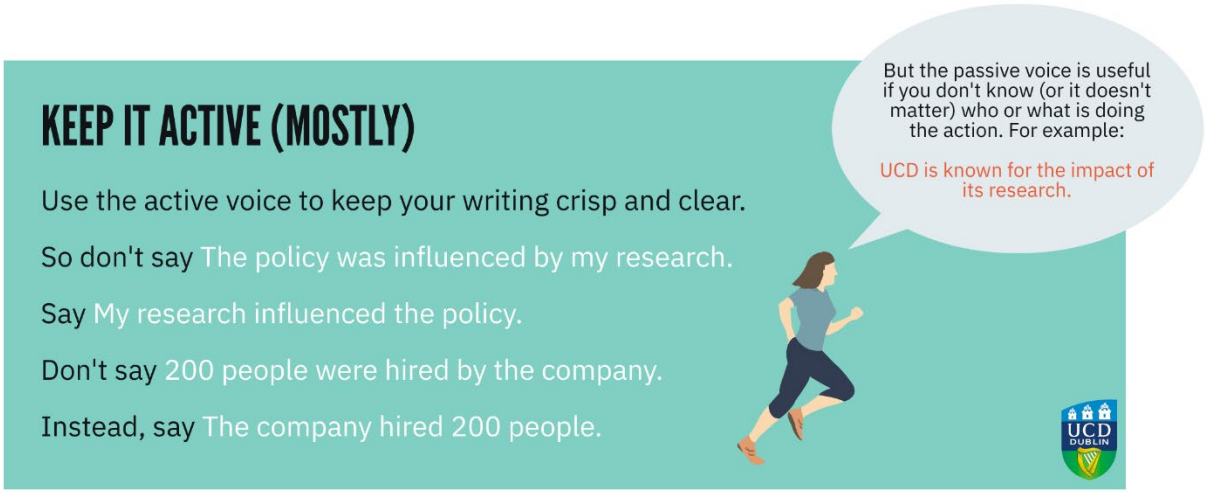
Be concise

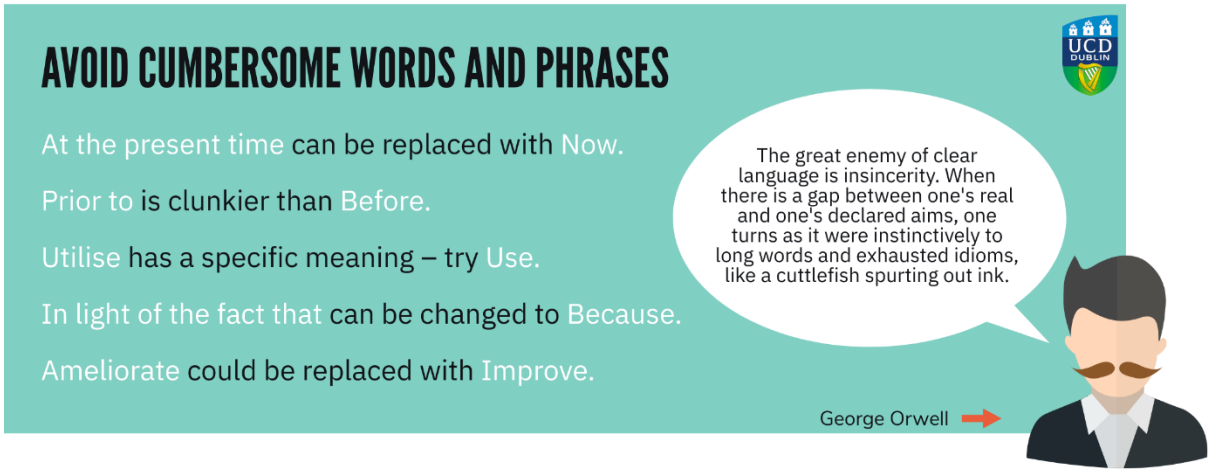
People are more likely to read your summary if it's short. So, try to avoid long sentences (more than 20-25 words) and long paragraphs (more than about 100), but vary sentence and paragraph length to keep things interesting. In general, you should be able to write a compelling and fairly detailed plain-English summary in about 300 words. Avoid repeating information — every sentence should say something new.

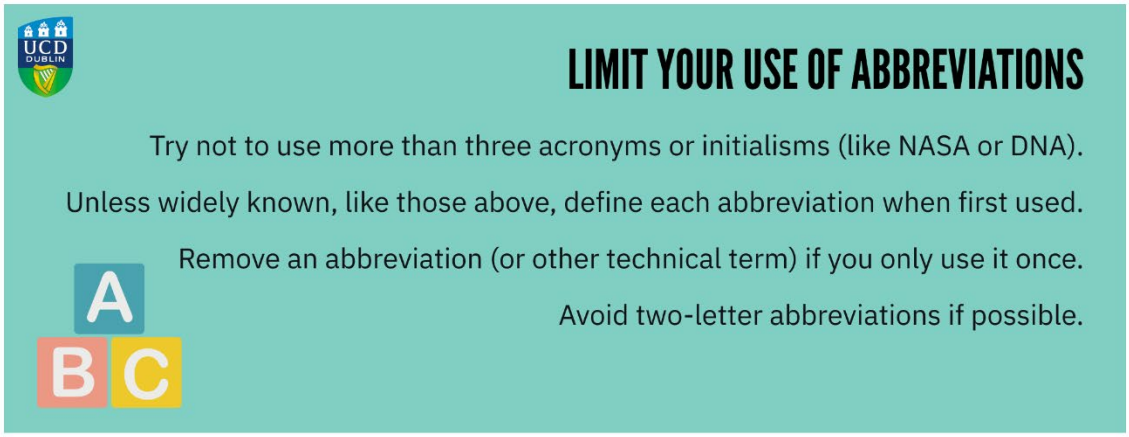
It can be tempting to go into detail on every technical or scientific concept surrounding your research. But this is unnecessary. Instead, work out what the reader needs to know in order to understand your findings, and explain this as clearly and succinctly as you can.

However, don’t fall back on vague language to reduce your word count. Don’t say “My research shows how diet and exercise affect rates of cancer”. Instead, be specific and give a direction of effect: “My research shows that poor diet and low rates of exercise increase rates of cancer by XYZ.”

Here are some specific tips for keeping your word count down:







Avoid jargon

Use everyday language rather than technical jargon. Similes or analogies can be a useful way of communicating complex ideas in simple language, but try not to overuse them. If you only use a technical term once, consider removing it from your summary. Make sure any technical language is defined or explained when first introduced.

To ensure than non-experts can understand your summary, run it by a friend or family member without a background in your field.

Identify the essence

Take a moment to work out your headline messages. Think about what your audience will find most interesting about your work (this will be easier once you've identified your audience and considered their needs). Then write a couple of short sentences – potentially including a surprising fact or fascinating statistic linked to your work – that will grab people's attention. Finding a compelling hook is crucial for promoting your research online, where space (and potentially people's attention spans) is more limited. It should immediately let the reader know what you did and why it's important.

You might find it useful to identify your headline messages after you've written your plain-English summary, since in many ways it will be a 'summary of the summary'.

Collaborate

Consider working with your target audience to co-write (or review) your summary, so that your key messages are more likely to resonate. Input from non-experts can also improve the clarity of your plain-English summary, helping to ensure it is truly accessible and engaging to a wider audience.

Include an image or video

Add some visuals to bring your summary to life. This could be a photograph (or abstract representation) of whatever you study, an infographic, a data visualisation, or any other suitable image.

If you have the expertise, or budget to hire a professional production company, you could even try creating a video summarising your work. There are many different approaches you can take here. Talking-head style interviews, for example, where you describe your research to the camera, are relatively quick to make. Hiring professional equipment and an editor can be expensive, however. Animated explainer videos, although time-consuming and sometimes pricey, are excellent at conveying complex information in a clear way. And presentations – in which you talk over a series of slides,

images and existing footage – are relatively simple to produce, but can lack the visual flare of other video types. Visit our section on creating multimedia resources for more information on producing videos.

No matter what style you choose, sharing it across social media, and on websites like (opens in a new window)We Share Science, will draw more attention to your work than text alone.
Here are some of the finalists of UCD's Research Impact Case Study Competition talking about their research and its impact:

Tailor your message

Having prioritised your audiences according to how important they are to your research, and how much influence they have over its dissemination and impact, you should adapt your message accordingly. To continue the example from the Identify your audience section, let's look at a longitudinal study of primary school children's lives:

Audience	Key message
Primary audience: policymakers, academics	The quality and uniqueness of the data/methodologies; the usefu datasets, case studies, new qualitative findings).
Secondary audience: education community (professional/sectoral groups, civil service)	Key findings and highlights. Communicate findings to draw this interest in the next stages of the project **or** to encourage engage championing of the research.

Audience	Key message
Tertiary audience: parents, general public	The value of the research now and for future generations. Comm encourage support for funding of future studies and uptake of th and secondary audiences.

Will you want to communicate different things in different phases of the project? If so, consider refining your messages through the project lifecycle.

Identify your best outputs

Your audiences might suffer from information fatigue if you share every single output with them. So think carefully about what you're promoting. Which of your outputs are strongest? Which best represent your excellent research? Which contain the most robust, interesting and valuable findings? Consider these questions so that you can put your best foot forward when promoting your research.

When applying for funding, researchers are increasingly being asked to write so-called "narrative CVs", describing their key achievements in a series of structured paragraphs. You can only include a limited number of publications in these CVs, so it's good practice to work out which are strongest. For more information, see our guide on (opens in a new window)how to write a narrative CV.

Identify your partners

Research is rarely done in a vacuum. Your outputs have probably benefited from the work of many people, such as research collaborators (both within and beyond UCD), staff, technicians, mentors, industry partners, publics, and so on. Where suitable, make sure these partners are included in any promotional activities you undertake. Writing a tweet? Tag them in it. Presenting at a conference? Include a slide of acknowledgements. Publishing an output? Include a (opens in a new window)taxonomy of credit.

If you use an engaged research approach, work with your community partners to develop a communication strategy together. Your community partners can help you identify different audiences for your research, and will likely have great insight into the key messages from their perspective. These messages can often be quite different from those aimed at an academic audience. Community partners are often adept at communication that reaches beyond the academic sphere, so it's in your interest to work together.

Identify and know your audiences

Many different people across society may be interested in or affected by your research, including policymakers, other academics, the mainstream media, charities, NGOs, businesses, and of course members of the public. This last group might consist of patient cohorts, families, school children, inhabitants of a specific place, and so on.

The list is endless, and it can be difficult to know who you want to reach. Ultimately, you first need to work out what you want to achieve, whether it's boosting your profile as a researcher, creating positive change in society, or raising awareness of an issue close to your heart. Below are a few potential audiences to get you started.

Citation increasers

If your aim is solely to increase citations, your audience will traditionally be other academics, although raising the profile of your research elsewhere can also contribute to citation impact.

Beneficiaries

If you want your research to make a meaningful difference in society, you might want to start by thinking about who stands to benefit from it, and the resources in our Impact Toolkit can help you do just that.

Gatekeepers

Consider the different needs of any potential audience. Will you need to communicate with them via a so-called gatekeeper organisation? Such organisations can be important to your research for many reasons, and it might be in your interest to keep them engaged throughout the project life cycle. Examples of gatekeeper organisations include:

- Patient advocate groups
- Sectoral or civil society representative associations
- Charities and trusts
- Industry associations or federations
- Consumer groups

Think about how these groups prefer to be contacted and engaged. If they are important for disseminating your research to those who can benefit from it, you should think about making contact long before you have an output ready to promote.

Other willing parties

Don't forget other audiences who might be willing to help promote your research or advance your research goals:

- Representative associations or advocacy groups connected with your field
- Partners, collaborators and affiliates
- The general public

When reaching out to the public, get specific. Is your audience a particular demographic? Are there specific subgroups you would like to reach (voters, consumers, school-leavers, etc.)? Answering questions like these can help you identify the most suitable communications formats and channels.

Your personal networks

Lastly, use your existing networks, online and offline, which may be filled with people who can help increase the reach and impact of your research:

- Academic networks within and outside UCD
- Elected representatives
- Government departments, particularly policy research units
- Industry networks
- Community networks

Consider how you might use these networks, and identify people within them with whom you can share your outputs.

Prioritise your audiences

Once you know who your audiences are, prioritise them. Think about their importance to the success your research **and** their level of influence over its dissemination and impact. Then deploy your efforts and recourses accordingly.

The diagram below shows how you can use this method to work out who to keep engaged, informed and aware of your work. Those in the top-right quadrant, with both high importance and high influence, are your primary audience, and should be kept engaged throughout the research project. Those with *either* high importance or influence are your secondary audience, and you should think about keeping them informed about your work. The tertiary audience is the lowest priority, but it can be mutually beneficial to make them aware of your research.

By way of an example, consider researchers conducting a longitudinal study of primary school children's lives. They might prioritise their audiences as follows:

- Primary audience (most important and influential): academics and policymakers.
- Secondary audience (important or influential): education professionals and sectoral groups.
- Tertiary audience (potentially interested or supportive, but less important or influential): parents, general public.

Professor Mark Reed's (opens in a new window)Stakeholder Analysis Template is a useful tool for prioritising audiences based on how much they stand to benefit from the research as well as how much they can contribute to it.

Knowing your audiences helps you to determine which communications activities to spend your precious time on, and which are less important. And it means that you can develop tailored messages that reflect the needs and interests of each group.

Create multimedia resources

Home
Create

There are many formats that you can use to communicate your message. Why just type a tweet when an image says a thousand words? These pages offer guidance on using videos, podcasts and other multimedia to help your research stand out.

Infographics, presentations, posters and flyers

Learn design tips and discover services and software that can help you create eye-catching visual aids. See more >

Data visualisation

Read our guide on how to represent your data in a visually interesting way. See more >

Video

From high-end productions to homemade demos shot on smartphones, video is the fastest growing media for reaching diverse audiences. See more >

Podcasts

Audio is a great way to promote your research and showcase your expertise. Learn about different channels and check out our production tips. See more >

Blogs and articles

What constitutes a good blog post these days? Learn how to write one, and see our guide on how to write articles and news stories for UCD channels. See more >

Web content

Learn the basics about creating content for websites. See more >

Infographics, presentations, posters and flyers

Computers recognize features that humans perceive as aesthetic.

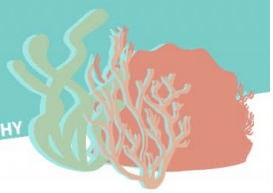
High **color** intensity and diversity.

Highly **textured**.

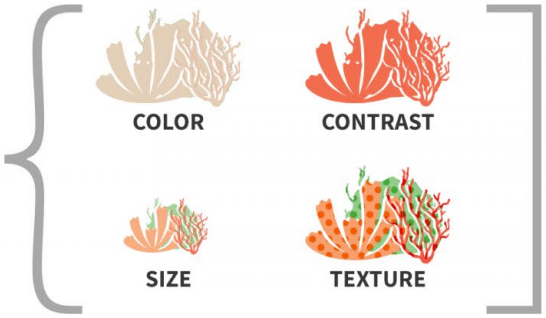
These features are good indicators of coral reef health.

High **microbial** diversity.

Few discernable high order **objects**.



Analysis of
109 FEATURES



Aesthetically-pleasing reefs are **healthy** reefs.

CONCLUSION

PeerJ

Can we measure beauty? Computational evaluation of coral reef aesthetics. PeerJ 3:e1390 DOI: 10.7717/peerj.1390 https://peerj.com/articles/1390/

DRAW SCIENCE

(opens in a new window)Piktochart
(opens in a new window)Canva
(opens in a new window)Venngage
(opens in a new window)Infogram

Close All

Example infographic: How to write ethically (by UCD Research)

WRITE ETHICALLY

FROM START TO FINISH

PREPARE

Secondary sources might have misinterpreted the work

HAVE A **THOROUGH UNDERSTANDING** OF YOUR SOURCES

Accurately communicate their ideas and terminology

WRITE

SELECTIVE REPORTING

Present unbiased information by acknowledging conflicting evidence and alternative interpretations

CITE YOUR SOURCES

DO NOT PLAGIARIZE

USE YOUR OWN WORDS AND SENTENCE STRUCTURE

&

MAINTAIN THE INTENDED MEANING OF THE SOURCE

OR

QUOTE VERBATIM TEXT

PUBLISH

Only include those who have made substantial contributions to a project

Give proper authorship or acknowledgment to those who have contributed to a paper

AVOID GHOST AUTHORSHIP

See UCD's Library Guides and Authorship Policy for more details

UCD DUBLIN

UCD Library Guide on Scholarly Publishing

UCD Library Guide on Referencing, Citation & Avoiding Plagiarism

UCD Authorship Policy

Example Infographic: 5 top tips for increasing citations (by UCD Research)

Presentations

We've all witnessed a terrible PowerPoint presentation: too many slides; far too much text on each slide (in large blocks of text, in a tiny font); too few images; images that are too small or blurry; animations popping out all over the place; and links or videos that don't work on the day.

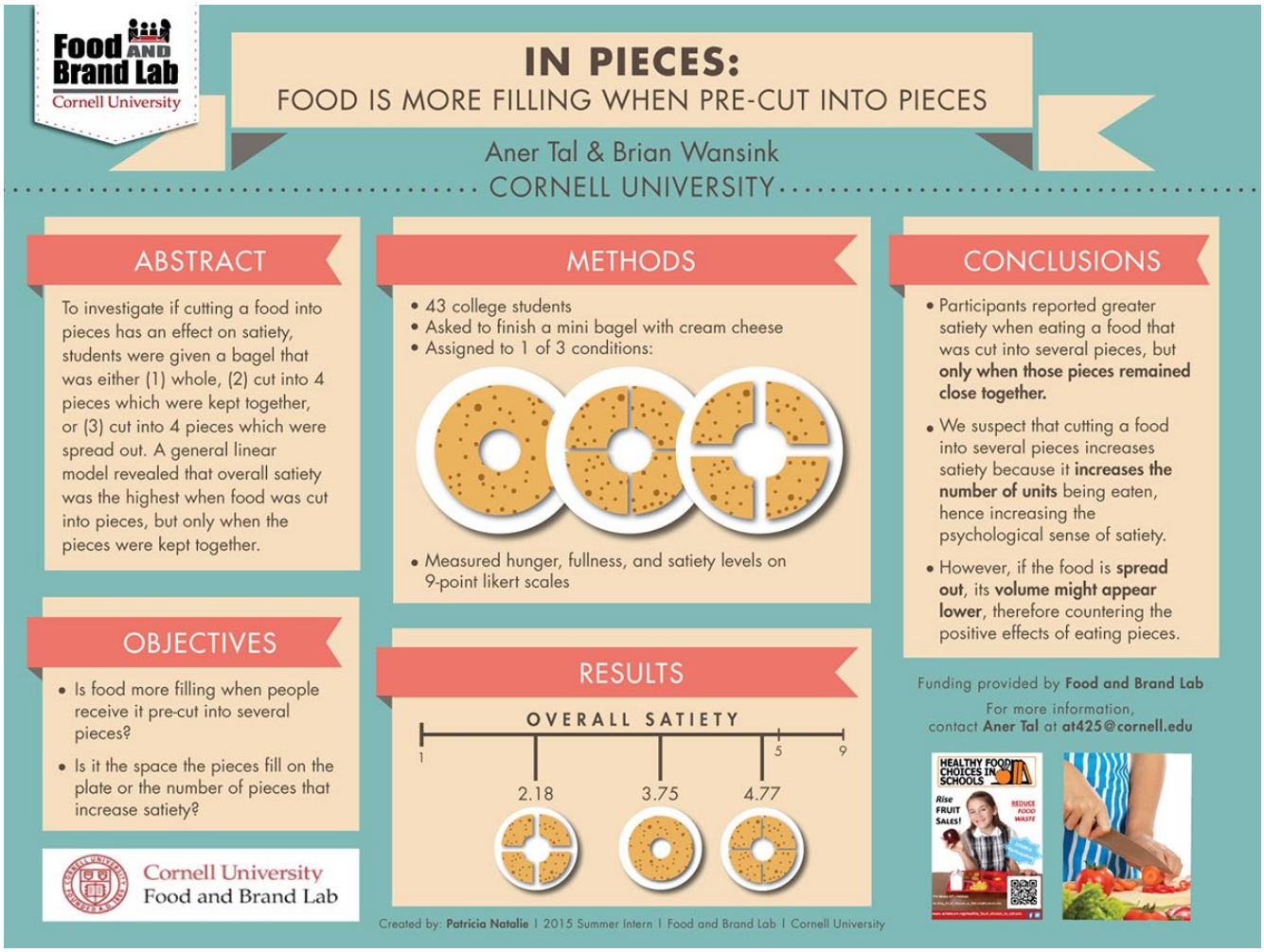
It's a shame, as a good presentation can achieve so much. To avoid all the typical mistakes, follow these simple rules of thumb:

- As much as possible, abide by the "6 by 6" rule: no more than six words per line, and no more than six bullet points per slide.
- Avoid clashing colours, colourblind combinations (red/green), and colours that fade next to one another. Use simple contrasting or complementary colours, e.g. light text on dark background.
- Use images but (in general) just one to two per slide is enough. Use images of reasonable quality and make sure that they're relevant and interesting – they are talking points for your presentation.
- Keep your slides simple. Don't make them too busy with lots of different animations, and keep the style consistent throughout.

- Practice! For the most part, you should deliver your presentation facing your audience, not your slides. And make sure it all works before you begin.

Presentations do not need to be really stylish, but the better yours looks, the more enjoyable it will be to watch. If you're not much of a designer and don't want to stretch to paying a professional, use online tools such as those mentioned above, or a service like (opens in a new window)Templafy for a PowerPoint-specific option.

Tip: See the World Blind Union's (opens in a new window)guide to accessible document and presentation design for people with impairments such as low vision, colour blindness and dyslexia.



Research posters

Research posters remain a favoured communications format, particularly at conferences, fairs and exhibitions. You can find a wealth of guidance and tutorials online with a quick search, but there are general principles that apply when creating a research poster:

- Information is generally broken down into distinct sections, such as Background, Objectives, Methodology, Results, and Recommendations. A typical poster will have 4-8 of these sections laid

out in 3 or 4 columns – your decisions on layout should be guided by what best helps the information flow for the reader. But don't be constrained by this: some of the best research posters use unique layouts to get the information across.

- It should be easy to read. And ideally from a few feet away – don't use too much text!
- Formatting should be consistent across the poster.
- Your poster should generally include graphics, and they should (i) make sense and (ii) be of high quality.
- Any graphs or visuals must be easy to understand by all of your intended audiences.
- When completed, your key points of information should stand out clearly.

For more comprehensive guidance, including graphics and file formats and online resources and tutorials, see poster production and digital poster resources from UCD Teaching and Learning. Find more examples and ideas for poster design at the (opens in a new window)Academic Research Poster Design Blog.

Flyers

Digital flyers are small images that you can share on social media posts or by email. They can help you communicate your actual research findings, as in the infographic form mentioned above. But they can also be used to (opens in a new window)advertise a seminar or (opens in a new window)conference; to (opens in a new window)share an opportunity or (opens in a new window)an accomplishment; to (opens in a new window)raise awareness; or to (opens in a new window)promote a book or (opens in a new window)journal article. Flyers can also take the form of animated GIFs, like (opens in a new window)this one from The Lancet.

There are many ways to use flyers and images on social media. Whatever you use them for, they're a great way to increase engagement. Posts with images stand out more in the newsfeeds of Twitter or LinkedIn users. The ability to tag such posts also increases their potential reach, drawing attention to them in the tagged users' notifications. For this reason, it is best to create flyers designed to work with Twitter, but which also work on other platforms.

Lib Guide! See (opens in a new window)further guidance from UCD Library on how to create these type of graphics using Powerpoint and Canva, and how to use free images from UCD and other online sources sources.

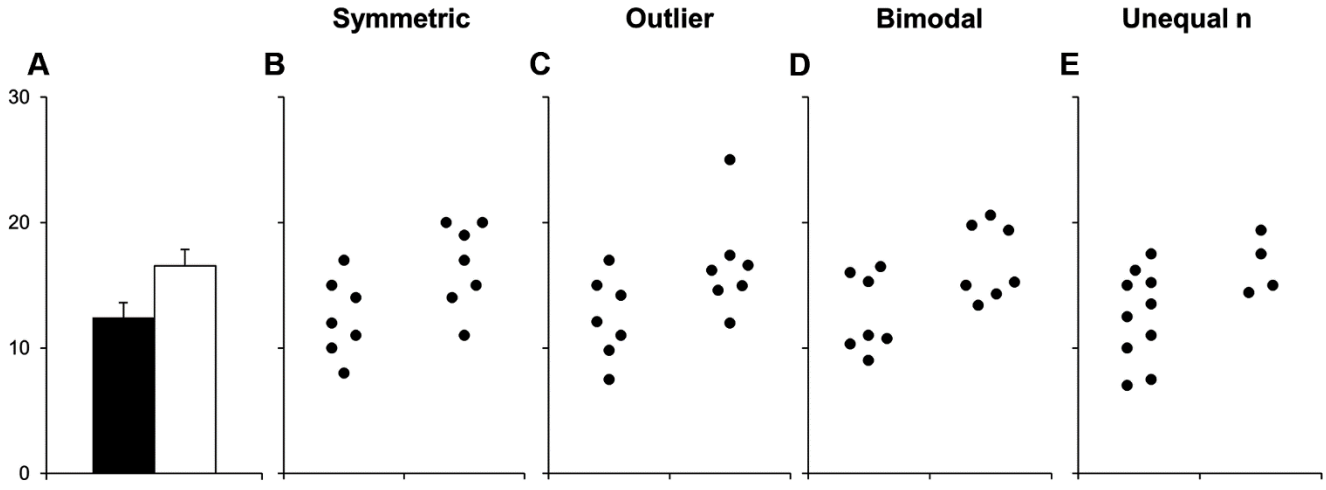
Data visualisation

What is data visualisation?

Data visualisation ("data viz") includes a wide range of techniques for the visual representation of data and information. With links to graphic design, computer science, psychology and a range of other disciplines, data viz helps users to explore and comprehend large amounts of information quickly.

Fundamentally, it is about making research more accessible by communicating complex data in a format that helps the reader understand what the data represent. Used correctly, this is one of the best tools for highlighting relevant information to your audience.

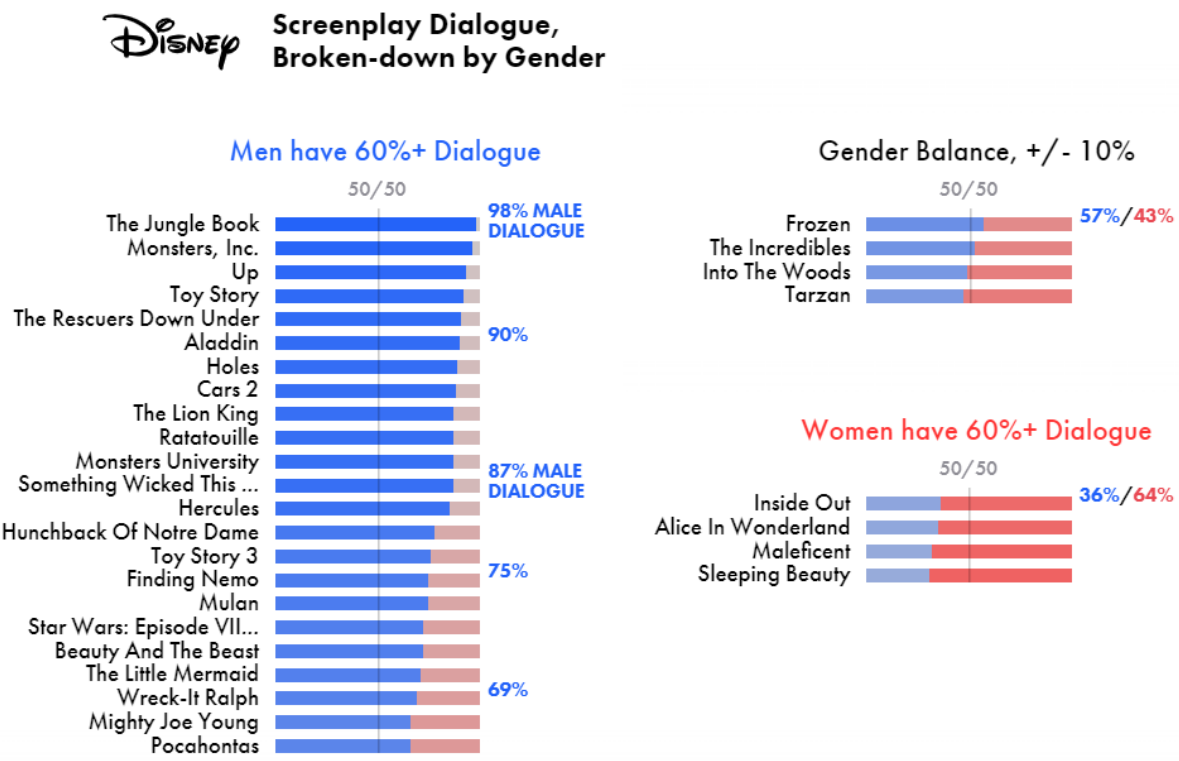
There are two main types of data viz: exploratory visualisation and explanatory visualisation. Simply put, exploratory visualisation is used to help figure out the story the data is telling you, whereas explanatory visualisation is used to tell the story to your audience. Your first question in data visualisation is to determine if you are designing to explain or explore the information you're presenting. An example of each is given below:



Exploratory data visualisation

Exploratory data viz is used to make sense of data by visualising trends and relationships. It is used to understand how the data are organised, distributed and shaped, and to explore potential underlying patterns. This type of data visualisation is typically used as part of the data analysis phase.

In the example here (from (opens in a new window)Weissgerber et al. under a CC-BY license), each of the four data sets (B-E) can be accurately represented by the same bar graph (A). This demonstrates how choosing the incorrect visual (the bar graph) can obscure important details about the data, possibly misleading readers. Be careful not to mask details behind summary statistics.



Explanatory data visualisation

Explanatory data viz is used to communicate findings and insights. It focuses on presenting the important findings of your data and typically has little to no analytical value. There is editorial decision-making as you decide which information stays in, and which information is unnecessary to highlight the key insights.

The image beside, from (opens in a new window)The Pudding, shows Disney screenplay dialogue, broken down by gender. In a study of 30 disney films, 22 have a male majority of dialogue. Even films with female leads, such as Mulan, the dialogue swings male.

Explanatory data viz can communicate data like these in a striking way. For another example, check out XKCD's representation of the (opens in a new window)relative depth of lakes and oceans. Perhaps the most famous example of a complex story told in a single graphic dates back to 1869, with Charles Joseph Minard's cartographical depiction of the losses suffered during Napoleon's Russian campaign of 1812 ((opens in a new window)here it is, translated into English).

What does good data visualisation look like?

Data viz should help the reader understand the data. When designing, you need to ensure that everyone viewing the visualisation will be on common ground about what it represents. Different audiences may read and interpret information differently. An audience of experts, for example, will have different expectations than a general audience. Consider what type of information is most useful to your audience. Then consider the functional role of visualisation. To use data viz to its full potential, you need to understand both your data and your audience.

A key resource here is the (opens in a new window)Data Visualization Catalog, a comprehensive library of different information visualisation types – from line graphs to radar charts to heatmaps – developed by Severino Ribecca. It includes a useful guide of charts categorised by data visualisation functions and audience communication goals. For each type of visualisation, it also suggests tools that can help you make them.

Creating engaging and usable designs can be challenging. When making design choices, the **HATS** acronym can be useful:

- **Headings** can promote easy navigation of a visual.
- **Access** refers to the visual cues that help a reader navigate and understand your visual.
- **Typography** promotes ease of reading and understanding the hierarchy of information.
- **Spacing** refers to positional design, which helps focus the eye of the audience.

Accessibility

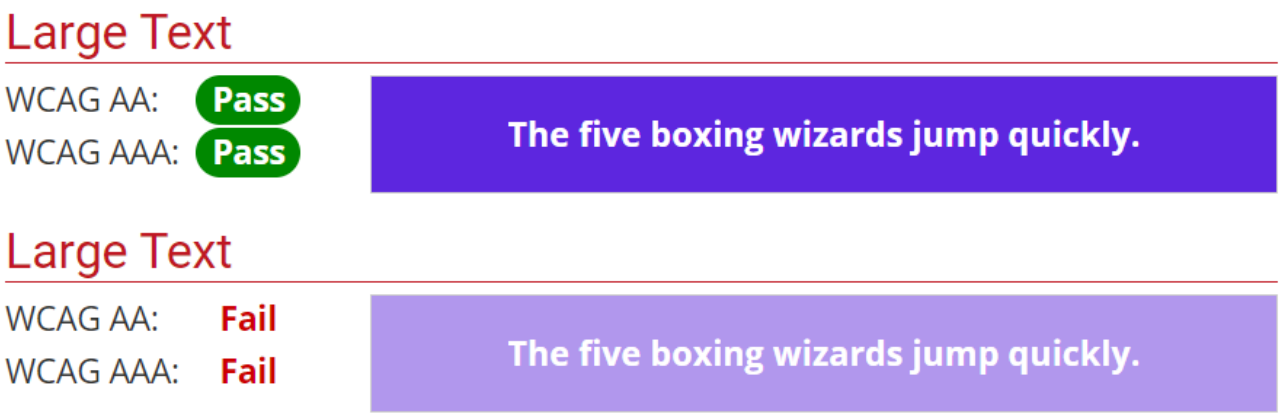
Designing with accessibility in mind will make your data visualisation an equitable experience for users of all circumstances and abilities. The World Wide Web Consortium (W3C) developed a set of

accessibility benchmarks called the (opens in a new window)Web Content Accessibility Guidelines (WCAG).

Visual accessibility

You should also consider visual accessibility. There are two types of contrast: brightness and colour. The highest brightness contrast is between black and white. Complementary colours have the highest colour contrast. However, contrasting full colours have no brightness contrast and cannot be discriminated by colour blind people. Thus, you should not rely on colour alone to differentiate information. The main contrast should come from brightness and not from colour. There is a range of helpful online tools that can help you choose accessible contrasts.

Here's a sample output from a contrast checker. The top panel has a high colour contrast ratio and meets WCAG colour contrast accessibility standards. The bottom panel does not have sufficient contrast to meet accessibility standards:



Misleading colour scales

Rainbow colour is often the default scale for many data visualisation applications. However, people see colour in terms of hue, saturation (or intensity), and lightness (how much white or black is mixed in). Humans do not perceive all colours uniformly and the transitions between some colours on the rainbow spectrum appear gradual, while other changes seem much more abrupt. Furthermore, the perception of

a colour can be influenced by other nearby colours. This can lead to incorrect assumptions about the underlying data being represented and introduce bias. A number of (opens in a new window)alternative colour scales have been developed to minimise this unintended bias, but these are often not the default scales on data visualisation software.

Things to do and things to avoid

In general, follow these rules of thumb:

- **Do**: directly label your data.
- **Avoid**: only using legend labels.

- **Do**: separate elements with whitespace or a pattern.
- **Avoid**: relying on separating data based solely on contrast between colours.

- **Do**: show the output at all times.
- **Avoid**: using complex tools like hovering (where information information displays when the mouse hovers over the diagram – it makes machine reading difficult and may be hard for low-vision users to interpret).

- **Do**: check that the visual is understandable within 5 seconds or so.
- **Avoid**: using visual aids that are more complex than your writing.

- **Do**: use your diagram to accurately and honestly represent your data.
- **Avoid**: inflating trends, data points, results, or scale with visual tools.

How can I make one?

There are a number of resources available to help you create or commission great data visualisations.

- (opens in a new window)From Data to Viz leads you to the most appropriate graph for your data, links to the code to build it, and lists common caveats you should avoid.
- (opens in a new window)The Data Viz Project organises visualisations by type, function, shape, and the input required.
- (opens in a new window)The Data Visualisation Catalogue categorises visualisations by function and audience communication goals, and suggests tools that can help you make them.

- (opens in a new window)UCD Library's Visualisation Tools LibGuide includes links to software and tools for researchers.

Video

Why video?

Video is one of the fastest growing media for communicating with diverse audiences, and it attracts more engagement on social media platforms than other posts. You can create a range of different types of videos, requiring varying degrees of technical know-how and budget.

While hiring a production company is the best way to produce a professional-looking video, this is beyond the means or requirements of most researchers. But that doesn't mean you can't learn from the experts and produce something effective yourself, using free or inexpensive services online or available in UCD. With little more than a camera phone, a laptop and some free software you can create:

- Video abstracts (a quick online search will bring plenty of advice on how to make them, like (opens in a new window)these tips from Cell)
- Talking head videos
- Explainer videos
- Promotional videos for stakeholders

The type of video you decide to make will depend on your audience and the message you want to get across. You should also think about where you're going to display your video. It can be uploaded to a relevant website, hosted on your own YouTube channel, or shared on websites like (opens in a new window)We Share Science.

Making your own

(opens in a new window)Lumen 5
(opens in a new window)Adobe Express
(opens in a new window)VideoScribe by Sparkol
(opens in a new window)Video in Canva
(opens in a new window)Wondershare Filmora
(opens in a new window)DaVinci Resolve

Professional video and animations

If you have the need, and the budget, to commission a professional video or animation, carefully consider and clearly map out the messages you need it to convey. And think about the shots or imagery it might use to get those messages across.

For live-action video, think about what "b-roll" or "cutaway" footage would be useful for the video's talking points. You might need to source stock video or shoot additional location footage, which could add to your filming schedule or budget. That said, you can also get hold of free stock footage online, from websites like (opens in a new window)Pexels and (opens in a new window)Pixabay.
For animation, draft a script or narrative that clearly communicates the message of the video from beginning to end, whether or not you intend to include a voice-over.

See our resources for research projects for a list of suppliers, and UCD's (opens in a new window)research impact playlist on YouTube for examples of research storytelling in video.

Screen-capture video

This kind of video is free to make and great for explaining how to explore data on a website, dashboard or other productivity sharing platform, or simply to give a presentation of your research findings to share online. There are you can use, including:

(opens in a new window)Free Cam

(opens in a new window)Screencast-O-Matic

(opens in a new window)CamStudio

(opens in a new window)ScreenRec

Mac users can avail of the built-in screen-recording software , which is accessible via the QuickTime video app.

Podcasts

Reaching new audiences

Podcasts can be an excellent way to promote your work. Communicating your research and expertise through an engaging audio format can help you reach different audiences. Examples of research-oriented podcasts include:

- (opens in a new window)Europe's New Political Economy podcast

- (opens in a new window)The National Folklore Collection 'Blúiríní Béaloidis' (Folklore Fragments) podcast
- MGA 'Clinical Influencers' podcast series
- Agri-Food Matters podcast

Producing your podcast

When producing a podcast, consider these questions:

- What is your subject matter? Will the podcast have a consistent unifying theme throughout, or will each episode relate to something different? Think about what you **don't** want your podcast to be.
- What misconceptions might people have about your subject or topic? Your podcast might present an opportunity to address these, and move away from old stereotypes.
- What demographic do you think your podcast will appeal to? Where can they be identified? Where are they located? Learning more about your audience will help you focus your planning, and may help guide your topic choices for episodes, as well as your promotional tools.
- What will you call it? Choose a memorable name that tells your listeners something about your podcast content immediately. Check if the name has been taken on other platforms by using tools such as (opens in a new window)Namecheckr.
- Are there similar podcasts already available? Speak to colleagues in your area of interest and do some online searches. Think about their strengths and weaknesses. What special value can you offer in your podcast?
- Will you be the sole presenter, or will you have co-hosts or guests?
- Where will you record your podcast? You will need a quiet location where you won't be disturbed.
- Consider the length and frequency of your podcasts. Will they be short 10-minute weekly editions, for example, or longer but less frequent?
- Can you secure some dedicated recording equipment and/or software? Remember to keep your setup simple when first starting out.
- How will you structure your conversations? Check out UCD Library's on how to (opens in a new window)structure and record interviews.

Sharing your podcast

You can use many platforms to share your podcast. For example:

(opens in a new window)SoundCloud offers unlimited hosting on its website for around €100 a year, which includes the ability to track analytics regarding your global listenership. Soundcloud allows you to upload an image for each episode of your podcast, with a brief description, along with a link back to your social media pages.
(opens in a new window)iTunes allows you to sign up as a podcast creator, where you can also distribute your podcast, using an RSS feed drawn from your SoundCloud profile across a wide variety of podcast sites and platforms.
Some podcasters, like Folklore Fragments, also upload their podcasts to YouTube (as well as on more typical platforms like SoundCloud).

When sharing your podcast, be sure to include links to additional resources connected to the episode (like your research outputs).

Promoting your podcast

It is crucial to think about how you will get your podcast to your desired audience. Word of mouth through your research network is helpful but may not be sufficient. It is important to promote your podcast, as that in turn promotes your research and creates more awareness of your subject area.

- Social media – you could use your own or your School's social media accounts to promote your podcast.
- Media organisations – there may be organisations that will find your project interesting and can help promote it through news pieces, web features or articles.
- Your research network – other researchers you've previously collaborated with may help by sharing with their colleagues or institution.

Evaluating your podcast

Hosting sites like Soundcloud allow you to track analytics such as listening figures, listener locations, comments, and the number of likes for each episode of your podcast. This helps you to help paint a picture of audience engagement. From these details, you can create weekly or monthly reports to monitor trends and identify which podcast topics generate most interest from your listeners.

Blogs and articles

Writing for UCD

One of the easiest ways to get an article online to promote your research is to write one for your school, college, centre or project website. You can also pitch articles to ucd.ie and UCD Research, for inclusion in their news and features.

You will find local and central communications contacts on this page of the UCD Research Services Portal.

Read our practical guide to writing press releases and news stories for UCD for information on the University's communications channels and how to submit news items for them.

Features and news items can also be submitted to UCD's in-house magazine, UCD Today, or considered for inclusion on (opens in a new window)expertise.ucd.ie. See the guide above for information on how to contact these outlets.

Writing blogs

Blogging is a good way to communicate your research to both academic and non-academic audiences. It is more time consuming than using social media platforms like Twitter, but blog posts can be particularly useful for communicating some of your more complex research ideas, developing your profile and reputation as a researcher, and building an audience for your research.

Maintaining a blog requires some time investment. Try not to post too infrequently or sporadically. If you can get into a routine and publish regularly, you will be more likely to maintain an active readership. That said, don't put too much pressure on yourself to write blogs all the time. It should be fun!

If you're not interested in setting up your own blog, you could always reach out to established blogs in your field, asking them if they would be willing to cover your research. You can use Altmetric Explorer to identify some of these outlets.

For examples of successful blogs, take a look at some of these:

- (opens in a new window)Arts Management Ireland
- (opens in a new window)UCD Library Cultural Heritage Collections blog
- Systems Biology Ireland

- (opens in a new window)The National Biodiversity Data Centres
- (opens in a new window)UCD Neuropsychology Lab
- (opens in a new window)UCD School of Politics and International Relations

Coming up with ideas

There are many things you could write a blog about. For instance, you might give research updates, describe the background to your research, or explain new things you have learned through your work. You could also comment on current events, potentially through the lens of your expertise. Or you might report on a conferences or event that you attend, generating online attention in your subject area and helping promote your peers' research.

Whatever you decide to blog about, try to find your niche. The Internet is swarming with blog posts, so make yours stand out. Make your blog specific and it will be more likely to attract a following, and will rank more highly in search results.

Where possible, keep things interesting by incorporating images and videos in your blog.

Hosting your blog

These days, it is incredibly easy to set up a blog. Here are a few of the many sites you can use to get started:

- (opens in a new window)Wordpress
- (opens in a new window)Blogger
- (opens in a new window)Medium
- (opens in a new window)Tumblr

Creating dialogue

You can use your blog posts to spark conversation on social media. You can also encourage your readers to add comments to your article – interaction with and between your readers will help build a community and get people coming back for more.

Monitoring your blog

You may want to set up an analytics tool, like (opens in a new window)Google Analytics, to monitor traffic and track where readers are coming from, and which blog posts they are most interested in. This can give you an indication of interest in a certain topic and possibly inform decisions over when and what to post.

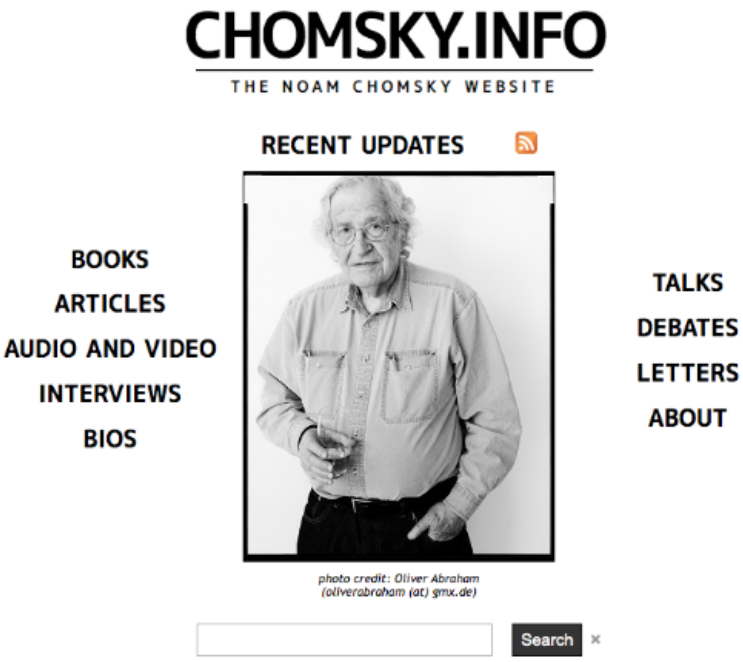
Web content

Five short tips for maintaining a website

Most individual researchers will only use their RMS profile, (opens in a new window)ResearchGate or LinkedIn profile for an online platform to provide information about their research. Websites are usually only required for funded research projects, groups or centres (see our communications resources for research projects on the UCD Research Portal). However, some individual researchers choose to have a website too, to build their profile online and showcase their expertise. Websites are also valuable for promoting and driving sales of books. Should you have the need to create, maintain or update a website, here are a few tips.

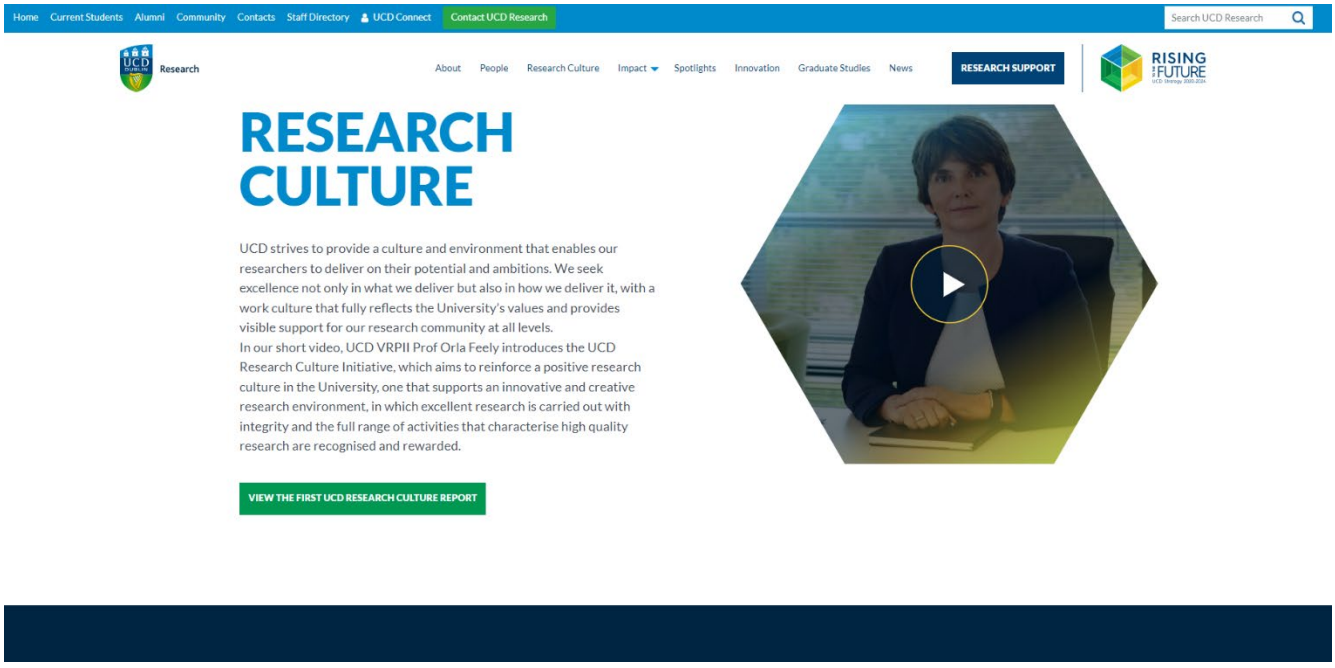
1. Be concise

Keep the text to a minimum and keep the messaging clear and simple. Who are your key audiences and what messages are you trying to get across? Saying as much as you need to in as few words as possible is best on web pages, where visitors typically spend six seconds or less. Make your homepage clean and easy to take in at a glance, like so:



2. Complement text with multimedia

Use images and other media, including podcasts and videos, to do the talking for you. See, for example, the UCD Research website, which makes use of multimedia assets produced for research promotion:



3. Be structured

Give every page a proper page title, not just because information needs to be organised clearly for the user, but also because it improves search engine performance.

4. Ensure images are high-quality

Use images but make sure they're of sufficient resolution for the intended space. The banners across the seven sections of Promote Your Research, for instance, are all made from high-res, royalty-free images from sites like (opens in a new window)Unsplash, (opens in a new window)Pexels and (opens in a new window)Pixabay.

5. Encourage readers to find out more

Include links to other relevant websites (your social media profiles, articles you have written, etc.) so that people can connect with you and find out more:

Reach out to wider audiences

Inform policy

Why bother?

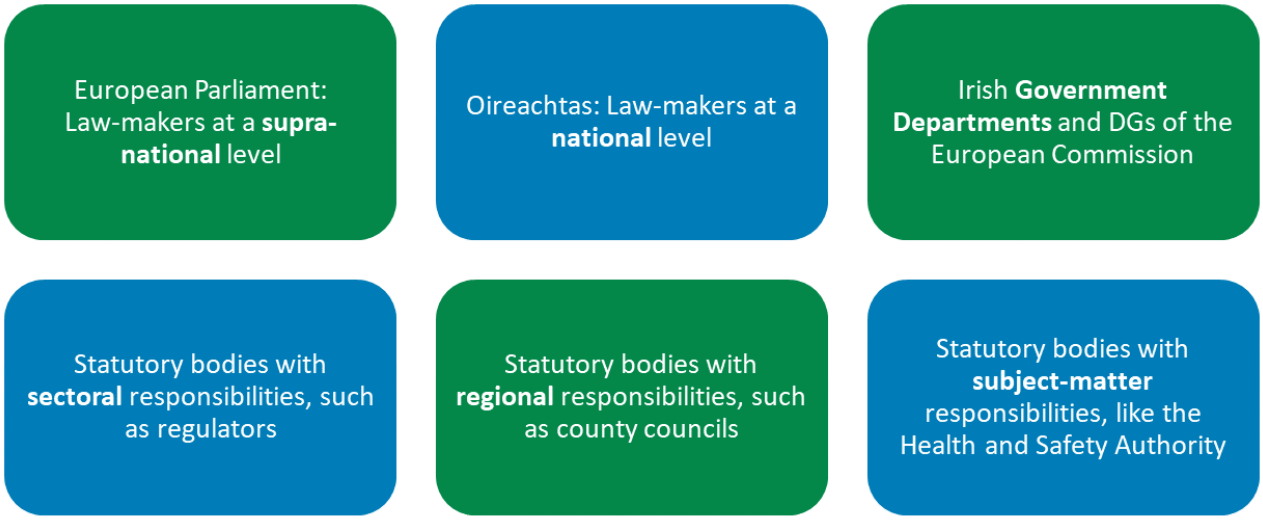
Policymakers might find your research useful, and it's possible that your findings can inform how policies are made and implemented. You may seek to inform policy for a range of reasons, including but not limited to:

- Helping address an issue in society that you care about (see our Impact Toolkit for more information on how your research can make a difference in the world).
- Building links with policymakers, researchers, and other stakeholders.
- Advocating for the value of scholarly research, strengthening the case for public funding.
- Building your reputation (as well as that of UCD and your colleagues).

- Helping shape the research agenda and set priorities (in Ireland and further afield).

How do I inform policy?

Policies are formed in many different ways, and at many different levels. Some examples are presented in the image below, adapted from the (opens in a new window)Cambridge University Policy Impact Guide:



But the policy community extends far beyond those who directly make and implement policies — a sprawling network of people feed into the policymaking process, from politicians and civil servants to lobbyists and consultants. And there are just as many ways to influence and inform policies. For example, you could:

- Submit written evidence to a relevant Oireachtas committee.
- Speak at an Oireachtas committee meeting (although you'll have to be invited to do so). Consider reaching out to the Committee Chair and position your research as part of the Committee's ongoing work, and ask if you can be included as part of a hearing. If you've been invited to speak, and would like specific advice, feel free to contact public affairs colleagues at UCD Research or the Geary Institute for Public Policy.
- Contribute to reports from interest groups.
- Reach out directly to a civil servant or policy analyst working in your area.
- Correspond with TDs about your research and its policy implications.

- Engage in ongoing public debates, through social media or the mainstream media for instance.
- Contribute to a political party's manifesto.
- Apply for membership of the board of a relevant government agency or policy advisory organisation, such as the National Economic and Social Council or the Climate Change Advisory Council.
- Feed into Government consultations. Note that consultation responses from individual researchers often have less sway than joint responses from a group of experts, potentially through an interest group, representative body or learned society. So if you want to respond to a consultation, try to coordinate with other experts.

The route you take will be unique, reflecting your expertise, the issue you're trying to address, and the various groups and organisations involved in the policymaking process. Think creatively about the most effective way to engage with the policy community to give your research the best chance of making a difference. Identify the most relevant players, learn about their agendas and motives, and consider the timing of your input relative to where they are in the policymaking process.

Our Impact Case Studies – like those from previous competition winners Michelle Norris and Crystal Fulton – showcase some of the routes that UCD's researchers have taken to influence policy.

In Ireland, there are ongoing discussions in Government about mechanisms to ensure policies are based on robust evidence. It is a rapidly changing area, so keep an eye out for up-to-date information. The Royal Irish Academy has a discussion paper on the subject (opens in a new window)here.

How do I write for policymakers?

For the most part, policymakers rarely have the time or expertise to read traditional research outputs like journal articles or conference papers, relying instead on policy briefings, research syntheses, think tank reports, and so on.

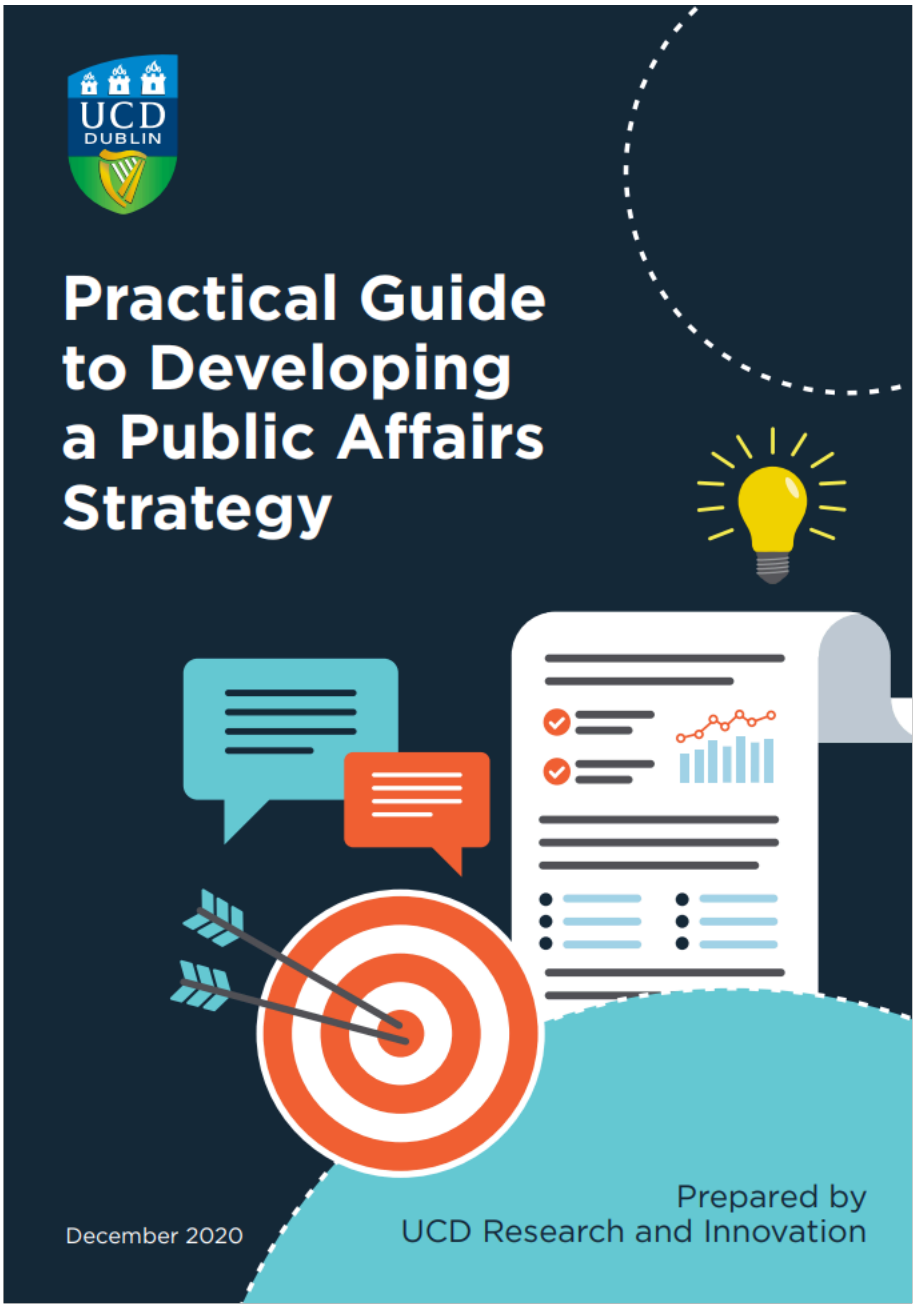
If you're in a position to create or contribute to a policy document, remember not to dumb down your findings or alter them to serve some political interest. A good rule of thumb is to assume you're dealing with a non-technical audience, so present your research clearly and concisely, in simple language. Our page on developing your message offers some advice on writing a plain-English summary of your research. But try not to provide a generic summary – make sure that what you write is tailored to your audience, whether they're civil servants, practitioners, or government ministers. Help them see why your research is relevant to their agenda.

Asking yourself some of these questions may help your writing have a greater impact:

- Do my intended audiences have any competing priorities?
- What exactly do I want them to do? Can I make clear, specific, and workable recommendations to policymakers?
- Is there political will to take up my recommendations or do I need to adapt them?
- Can I work with other bodies to strengthen my argument?

Policy writing is complex, reflecting the fact that a host of competing voices – some seen and some unseen – ultimately inform policy decisions. The best way to learn how to write an effective briefing is to read some successful examples ((opens in a new window)like these from the SPHeRE Network) in the relevant policy area.

But remember, don't stop engaging after you've submitted your policy paper or consultation response. It's not always sufficient to distil your research into a written product. Your evidence alone may not be enough to make a difference: you should try to build meaningful relationships with those you would like to inform. It is important that people have trust in your evidence, and in you as a researcher. For more information, read this chapter, by Professor Mark Reed of Fast Track Impact, on (opens in a new window)how to take a "relational approach" to engaging with policymakers.



Where can I learn more?

Attend an event

Experts in UCD's Geary Institute for Public Policy sometimes run workshops and events to help researchers maximise the policy impact of their research. Keep an eye on upcoming events, and consider attending one in future.

Browse our database of policy papers, expert perspectives, and policy digests

You may also wish to familiarise yourself with (opens in a new window)publicpolicy.ie, an online platform funded by UCD to inform and debate public policy in Ireland. It provides independent

evidence to influence economic, social and environmental policies, and to communicate relevant research findings to policymakers and interested citizens. Researchers can submit short (1,000-2,000 word) summaries, explaining the policy implications of their research. Read some of these summaries for inspiration, or consider submitting your own.

Read other guidance documents

In December 2020, colleagues in UCD Research published a practical guide to developing a public affairs strategy. Similarly, here is a useful (opens in a new window)'how to' guide for policy impact, from the University of Cambridge, and another from the (opens in a new window)Scottish Policy & Research Exchange.

How can I monitor public policy?

You might find some of these sources useful for monitoring public policy in Ireland:

- (opens in a new window)Merrion Street provides news and updates from government.
- (opens in a new window)Kildare Street is an archive of what's been said in the Dáil, the Seanad, and Committee meetings
- (opens in a new window)Houses of the Oireachtas – you can sign up for alerts on This Week in the Houses of the Oireachtas, The Dáil Schedule, and the Committee Schedule.

Promote research at conferences

Valuable spaces for sharing outputs and findings

Promoting your research outputs at conferences is an important way of drawing attention to your work. Conferences are extremely valuable for bringing your latest results to the attention of the research community, developing your network and finding future collaborators.

Remember that the conference has an online presence as well as a physical one, so be sure to use that stage as well as the real-life venue. It has a potentially much bigger audience, often including journalists and influential subject experts, who could help raise the profile of your research and draw the attention of potential collaborators. Using social media to complement and amplify your conference appearances can vastly enhance the reach of your presentations, maximising the effort and investment involved in participating in these events.

Make the most of academic conferences

There's plenty to think about when planning on attending a conference. Which conference is best for me to attend? Which session should I present at? Can I organise a special session? Can I host my own event? How do I use my time at a conference? How do I expand my network at the event? How do I communicate my work to best effect? Here are a few guides that might help (and you can find plenty more with a quick online search):

- (opens in a new window)Your complete guide to academic conferences – Ex Ordo
- (opens in a new window)Identifying and choosing research conferences to attend – University of Phoenix
- (opens in a new window)How to get the most out of a scientific conference – Scientifica
- (opens in a new window)11 Tips for presenting at a conference – Ex Ordo
- (opens in a new window)6 simple ways to handle a Q&A session at a conference – Enago

If you've taken an engaged research approach, consider inviting your community partner(s) to co-present with you (and to use their social media channels in support). Having an alternative perspective can be highly engaging and help academic audiences better understand the context and potential impact of your research.

Amplifying your conference activity online

- Post about your conference activity on social media, especially on Twitter, remembering to use conference hashtags and handles to gain the benefit of their audiences. Include your (opens in a new window)Digital Object Identifiers (DOIs) to draw attention to your own research, and use Altmetrics to track attention to your research outputs on the social media platforms you use.
- Connect with delegates on social networks. Engage them in discussion about topics raised at the conference and invite them to visit your website, blog or online profile. Using the Direct Message function of social platforms like Twitter can be a good way to arrange in-person meetings with delegates that you first interact with online.
- Consider making your conference presentations available online, on websites such as (opens in a new window)SlideShare, and share the link to your presentation via Twitter and other channels.

- Consider making any recordings available on YouTube or (opens in a new window)Vimeo. YouTube is the world's second most visited social network site: more than a billion people use it every month.

Develop your network

In all your efforts to promote yourself and your research, don't forget about traditional approaches to building a network. As well as helping you spread the word about your work, it is also important for developing relationships and finding collaborators.

There are more opportunities than ever to develop a fruitful network. For instance, almost all EU funding calls are now accompanied by brokerage events which provide further opportunities to promote yourself and your work to potential partners and collaborators. A lot of networking advice for academics is common sense, but it's easy to forget to take advantage of these simple but effective steps.

Below are some practical tips for growing and engaging a network, and further down is specific advice for taking advantage of EU brokerage events.

General advice for developing your network

- Use networking platforms that are specifically designed to enable professional networking and outreach, such as (opens in a new window)Research Professional, (opens in a new window)Academia.edu, (opens in a new window)ResearchGate and LinkedIn.
- Keep in touch with mentors and past collaborators, and keep them up-to-date with your key findings.
- Join organisations, associations and networks that will link you with academic and industry peers, like the (opens in a new window)European Women's Association.
- Reach out to those working in areas close to yours, within and outside academia, and make them aware of your important publications.
- Plan your career to make good use of sabbaticals and research visits.
- Attend networking events, such as those organised by MSCA and Horizon Europe, as well as national and non-EU funding agencies.
- Make use of existing contacts and partnerships that can help you make new connections.
- Use social media to find and engage with people and groups with shared interests, especially by following relevant hashtags and handles on Twitter and LinkedIn.

- Attend academic conferences where appropriate. For more information, see our page on promoting your research at conferences.

Taking advantage of EU funding brokerage events

Brokerage events (sometimes called "matchmaking events") are great opportunities for increasing your visibility, offering face-to-face meetings with potential partners. Below is some guidance from NCP Networks on how to make the most of them. Remember to keep an eye on your local National Contact Point (NCP). They offer a wealth of resources and information about EU funding calls and associated networking opportunities.

- Plan ahead. Preparation is key to making the most of these events, so set yourself clear goals. Prepare a good profile and remember to update your other online profiles in advance of the event.
- Spend time preparing your pitch for prospective partners. Tailor your pitch to calls identified in the work programme, or to potential partners you are going to meet. Keep it short and relevant.
- Check the event agenda and the list of participants, and invest time in choosing potential partners to meet face-to-face. Do your homework on participants you want to meet – social media can provide a wealth of insights into potential partners or groups of interest.
- Share relevant information with your NCP. You can also engage with them for information on potential partners or groups forming around your interest areas.
- Reach out in advance and break the ice with contacts you plan to meet, by email or social media.
- Follow up and stay connected after the event. Even if you don't end up collaborating on this occasion, it's always worthwhile to maintain an active network of colleagues.

Additional tips and resources

- Use the European Commission's (opens in a new window)portal to find partners based on their involvement in EU-funded programmes, or search by organisation type or country of origin. Alternatively, you can find partners for EU projects using the platform (opens in a new window)EUcalls.
- Look out for (opens in a new window)Horizon Europe Info Days, dedicated to the clusters of Horizon Europe. Following the hashtag (opens in a new window)#HorizonEU around these events on Twitter can lead you to individuals, groups and organisations with shared research interests.
- For more ideas on how to join a network see the Institute of Entrepreneurship Development's (opens in a new window)EUropreneurship Network resource.

Engage with the media

Assessing for newsworthiness and pitching to the media

Media coverage can draw a great deal of attention to your research. However, most article pitches fail to land, most commonly due to lack of newsworthiness or an "angle" to grab the editor's interest. To boost your chances of success, follow these (opens in a new window)tips from the Guardian and from (opens in a new window)Forbes on how to pitch to editors, like making sure you pitch relevant content to the right editor.

UCD's practical guide for researchers, Promoting Your Research to the Media, offers advice on how to recognise the newsworthiness of a piece of work or an occasion. The guide also provides an overview of key elements of a press release. On occasions where a press release may be appropriate, work with a professional. Find local and central UCD communications contacts on this page.

For further guidance, see Professor Mark Reed's (opens in a new window)Media Impact Guide and Toolkit for planning, targeting and evaluation tools for media engagement.

Pitching a story? What to do and what to avoid

Many editors recieve hundreds pitches every day (if not more), but they're still eagerly looking for items that will interest their audience. So it's crucial that you do what you can to help your pitch stand out. The guidance from The Guardian and Forbes linked above are worth reading in full, but to summarise their advice:

Do

- Target a particular section and send a personalised pitch to the editor responsible.
- Ensure your pitch communicates a clear understanding of the publication's readers and interests.
- Know your "angle" or "hook" and write a structured pitch around it.
- Begin with a clear, concise "top line" for your story (and a strong subject line in your email).
- Give a brief summary of who you are.

Don't

- Pitch your story without first reading the publication.
- Just write extensively about what you know.
- Send generic copy-and-paste pitches to a bunch of different editors and publications.
- Sit around waiting if you get no reply.
- Give away too much if it's a red-hot story.

Pitch to The Conversation

UCD research in the news
(opens in a new window)

On ucd.ie

See stories that have been published online by UCD newsroom.

(opens in a new window)

In the press

A successful op-ed pitched to Silicon Republic establishes leadership and highlights research.

(opens in a new window)

In the press

Specialist and trade media outlets like the Irish Farmers Journal are perfect for promoting research outputs.

Need a communications plan for your research project?

Think outside the box

Communicate creatively

With so many people vying for attention on the usual channels, some researchers are seeking novel and creative ways of communicating their research. In some cases, the production process can become a further part of the research journey and can lead to meaningful impact on society. Academic work has been communicated through media as diverse as performance art, computer games and stand-up comedy. Below are some examples from colleagues at UCD.

Influencing perceptions of prisoner mental health through theatre

Dr Catherine Cox led research into mental illness in Irish prisons from 1830 to the present day. In Ireland in 2018, over 70% of prisoners in solitary confinement, and 8% of all prisoners, suffered severe mental illnesses, a phenomenon heavily criticised by the UN.

To influence public debate on the mental health crisis in Irish prisons, Dr Cox co-created a series of events, including an award-winning play *The Examination,* with Dublin theatre group Brokentalkers (pictured); an art installation; an exhibition; and a second play, *Disorder Contained,* with theatre group Talking Birds.

The plays and art installation were toured in Ireland and UK, communicating challenging materials and histories in a way that influenced public perceptions of prisoners' right to psychiatric services in appropriate settings. Read the impact case study.

Standing up to Fatbergs!

In 2017, Associate Professor Tom Curran gained a Fulbright "TechImpact" Award at the Department of Civil, Construction and Environmental Engineering, North Carolina State University, to develop an advance warning system for sewer network blockages.

While this sounds like no laughing matter, Tom took to the stage in 2019 at a Bright Club night, and showed that stand-up comedy was a natural platform for the subject.

(opens in a new window)Bright Club Ireland is a variety night organiser, sponsored by Science Foundation Ireland, that encourages academics to channel their inner comedian and communicate their research to the public at fun stand-up gigs.

Giving oral histories a home

Dr Kelly Fitzgerald conducted a four-year research project to gather and share the stories of people who had first-hand experience of life in the Dublin tenements. The project specifically examined the memories of people who lived in tenements on Henrietta Street from the 1930s to the 1970s.

These oral histories are brought to life at 14 Henrietta Street, a mid-18th century Georgian townhouse now converted into a museum, which tells the story of the building from its origins as a residence for Dublin's elite to its incarnation as a tenement house for the city's working poor.

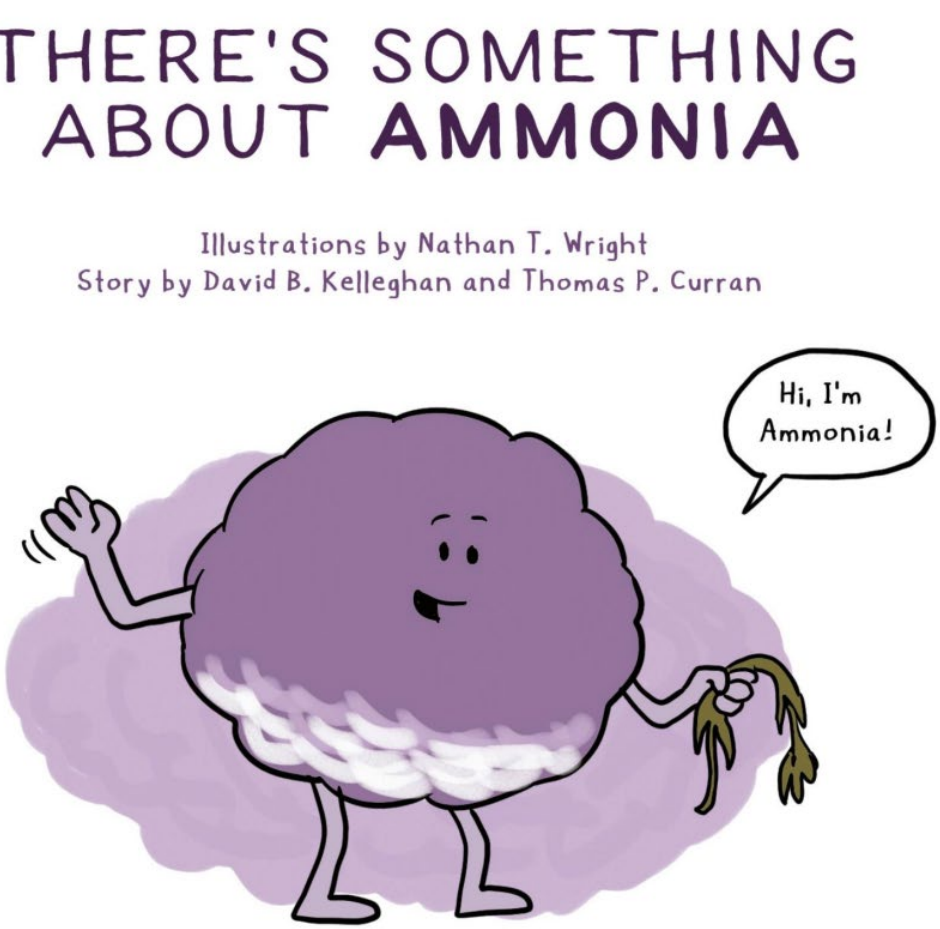
The museum has been critically successful and hugely popular with the public. Read the impact case study.

Gamifying typhoid history

Typhoidland is an international research and engagement project that challenges the myth that typhoid is a disease of the past, raises awareness about antimicrobial resistance, and analyses past interventions to inform current efforts to control the disease.

Dr Claas Kirchhelle and co-curator Dr Samantha Vanderslott have devised multi-award-winning exhibitions and educational content in the UK, US, Nepal, Bangladesh, India, and Ireland, including captivating animations and computer games in their award-winning world of A*lice in Typhoidland.*

Read the impact case study and (opens in a new window)visit Typhoidland.



Sharing science through a comic

Associate Professor Tom Curran and Dr David Kelleghan collaborated with Nathan T. Wright, an illustrator and artist based in Des Moines, USA, to create *There's Something about Ammonia*, a comic to communicate about the AmmoniaN2K project.

The creative output became very popular on social media and enabled the project to raise public awareness of ammonia emissions, their impacts, and potential solutions. It was subsequently awarded *Research Project Infographic of the Year* at the EPA's Researchers Awards for 2021.

(opens in a new window)Download the comic from Research Repository UCD or find versions in 16 different languages on the AmmoniaN2K project website.

Run your own event

Online events are here to stay

During the pandemic, webinars, panel discussions, "fireside chats" and a host of other online speaking events – both pre-recorded and live – became a regular occurrence. Events like these are flexible, allowing participants to join from anywhere in the world or to watch a recording in their own time, and they have a much smaller carbon footprint than in-person events. Because of benefits like these, online events will be with us for the long-term.

One of the great advantages of online events is that they offer unique opportunities for interaction – especially using digital applications like (opens in a new window)Menti, (opens in a new window)Slido and (opens in a new window)Kahoot. And they allow for shorter meetings (sometimes only 10 or 15 minutes) which wouldn't seem worthwhile for an in-person event but are perfect for a coffee break.

See a range of Covid-related web events from UCD Research, UCD Foundation, UCD Alumni Office, UCD Leadership in Healthcare Conference, and UCD Geary Institute for Public Policy.

Learn more about UCD Institute for Discovery's thought leadership web series Zoom for Thought.

Tips and resources

- Zoom Pro meetings are available for UCD faculty and staff.
- If you need an alternative to Zoom, you can try other services like Adobe Connect, Go To Webinar, and BlueJeans Virtual Events. Here's a list of (opens in a new window)10 alternatives.
- A professional web-based service can manage your online event for you, handling everything from hosting and streaming to attendee registration. These services can be very expensive at the upper end of the market. UCD has used (opens in a new window)WebinarNow, for a less expensive option.
- See our advice on YouTube for events to use the platform for live streaming and for scheduling pre-recorded events, and see our guide on video tools for editing your recording into a polished video.

- UCD University Club offers hybrid and virtual event services, including access to audio-visual equipment and external contractors if needed. See the club's brochure for their service offering and prices.

- Be aware of what's happening in the community. There may be events aligned to your research topic, so engage with them. Offer to attend, speak or create a bespoke session that brings you and your research closer to the community. For example, here's UCD at the (opens in a new window)National Ploughing Championships.

- If you don't have the budget for a professional web event service, but would still benefit from some help, you can hire a video editor to produce a professionally-finished video from recordings you've made yourself. UCD's contractor (opens in a new window)Laura Molloy has produced such work for UCD Research, like our Kids' Covid Q&A with Dr Tony for UCD Festival:

Increase your citations

Citations remain an important, if sometimes controversial, metric for researchers. The tips and advice found across the Promote Your Research website can help ensure other researchers find, use and cite your outputs. This page consolidates our advice on how to increase your citations and make a difference in your field. Expand the sections below to learn more.

Close All

Identify suitable journals for publication

Target appropriate journals that are read and respected by everyone in your discipline. You might want to take a look at your own reference list and identify journals that commonly appear.

14% of UCD's research outputs between 2016 and 2020 were uncited. Publishing in the right place is an important way of mitigating this risk.

It is also worth noting that a study covering (opens in a new window)923 scientific journals found that resubmissions were cited significantly more than first intents, largely due to input from editors and

reviewers, and the greater amount of time spent working on resubmissions. This significantly improved the citation impact of the final product.

Avoid the risk of zero citations

Papers with zero citations negatively affect metrics like Field-Weighted Citation Impact (FWCI) and university rankings (citation score). So carefully consider the reasons for publishing a paper if other researchers are unlikely to cite it, and be extra careful with conferences that are captured by Scopus but have low return in citations.

In theory, UCD could increase its FWCI by 17% by not publishing research outputs that receive zero citations:

	Tota
UCD's research output	19,090
UCD's research output (with zero cited outputs removed)	16,363
Change	*-2,727*

Publish in open access journals

Where appropriate for your discipline, publish in open access journals (ensuring they are indexed by Scopus or Web of Science). By making your outputs freely available, you can increase their reach and impact. For more information, read our section on open access or take

a look at this (opens in a new window)guide from UCD Library. As well as publishing in traditional subscription journals, you can also deposit a copy of your articles in an open access or institutional repository, like (opens in a new window)Research Repository UCD.

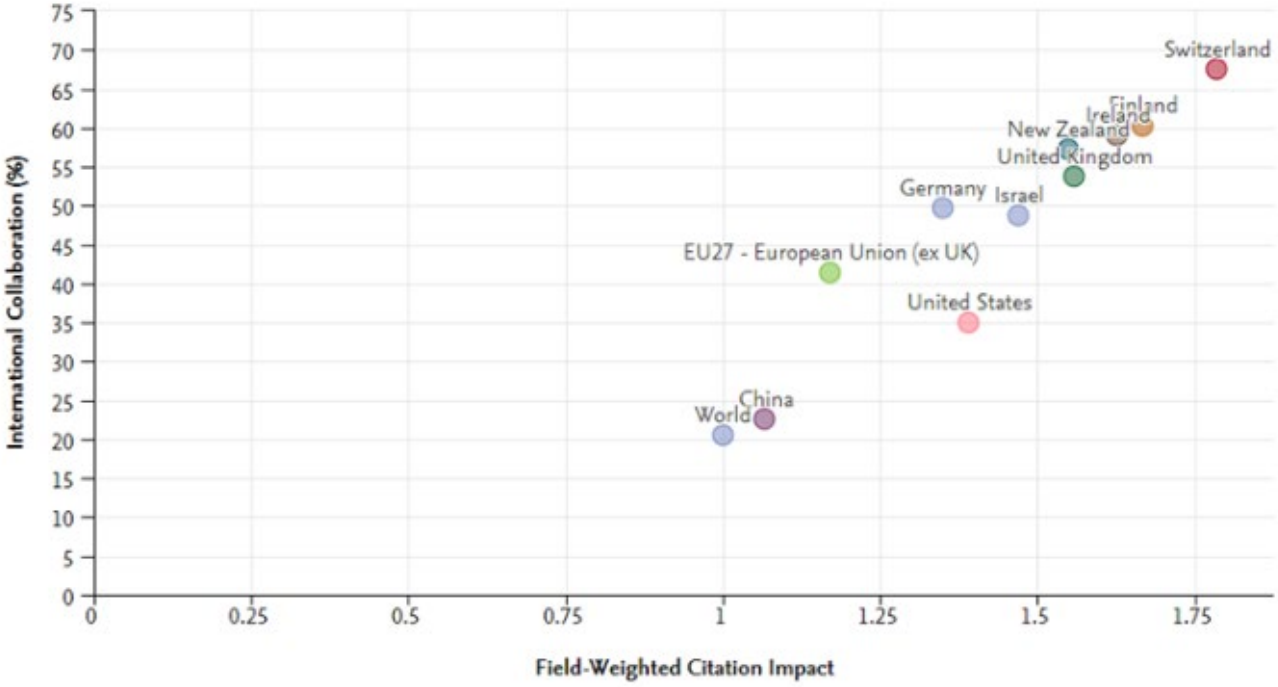
In 2001, Steve Lawrence published a (opens in a new window)hugely influential study which showed that open access conference papers in computer science were cited more than twice as often as papers that were not freely accessible online. More recently, (opens in a new window)Policy Labs analysed the results of 58 of the most highly cited studies of the so-called "open access citation advantage". 43 of the 58 studies confirmed the existence of such an advantage. Recent studies provide stronger evidence of an advantage than older ones: 66% of papers published between 2001 and 2015 confirmed the advantage, rising to 82% of papers published between 2016 and 2021.

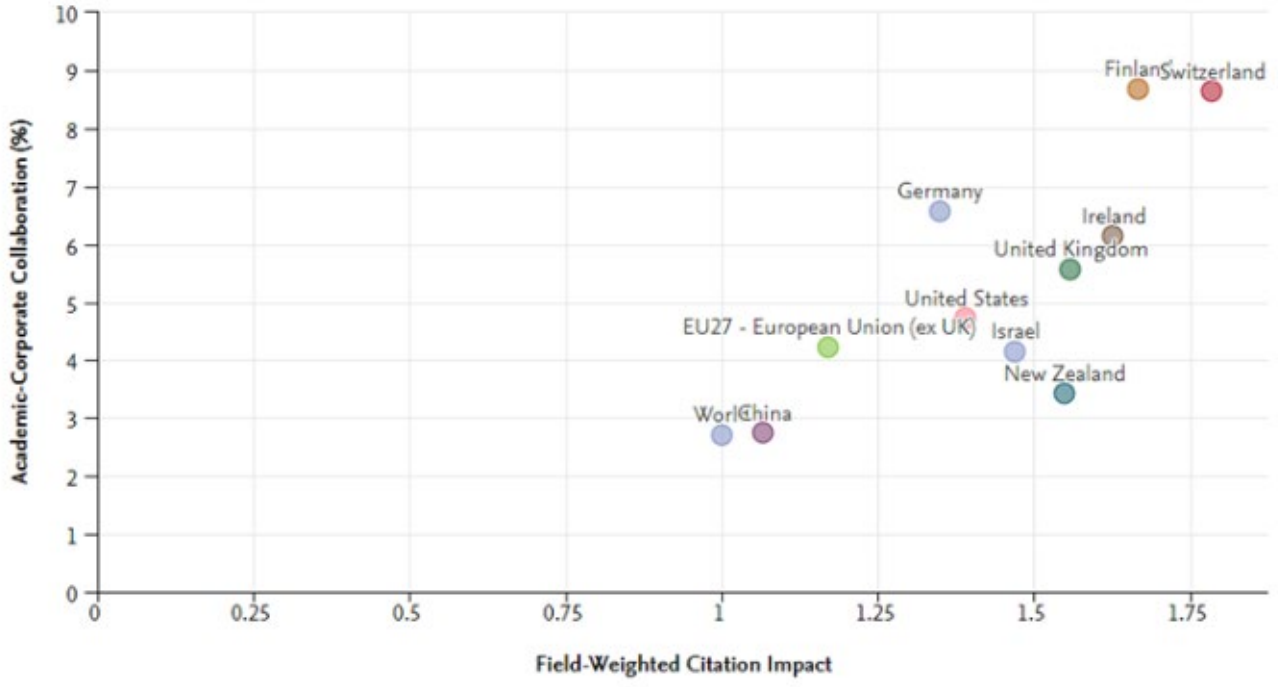
Looking at UCD papers in Scopus from 2016 to 2020, OA papers were cited 24 times on average, whereas non-OA papers received an average of 10 citations.

Increase international and industry collaboration

If possible, co-author papers with international and industry collaborators, making the outputs visible to a wider audience and likely increasing their citation impact. You might achieve this by extending your existing network, attending international conferences, and participating in large research consortia.

As you can see from the graphs below, international and industry collaboration both correlate strongly with citations (source – Elsevier SciVal, 2016 to 2020):





The benefits from international and industry collaboration on research outputs can be seen at UCD too:

Type of collaboration	UCD
Papers with industry collaborators	287% **above** world average
Papers with EU-funded collaborators	170% **above** world average
Papers with international collaborators	118% **above** world average
Papers with national collaborators only	15% **above** world average
Papers with institutional collaborators only	7% **above** world average
Papers without collaborators	13% **below** world average

Share the underlying data

Open data can (opens in a new window)significantly increase citations. Publicly available datasets are associated with a 69% increase in citations to articles that accompany the data. This correlation is independent of Journal Impact Factor, country of authors, and time since publication.
So, deposit curated open research data to accompany your paper in an appropriate repository for your discipline. For more information, see our section on sharing your data.

Take advantage of preprint servers

Releasing your research on preprint servers before it's published in a peer-reviewed journal has been shown to increase its citations.

A team led by Nicholas Fraser, a bibliometrics researcher at the Leibniz Information Centre for Economics in Germany, (opens in a new window)recently found that papers that had been submitted to a biology preprint repository (bioRxiv) before being published in a peer-reviewed journal garnered more citations on average than those without preprints. This citations-boosting effect was found to continue for at least three years after journal publication.

Be aware of relevant recent work within UCD

UCD does not cite its own recent output as often as many other institutions do. Try to build awareness of relevant work by colleagues, so that you can cite their outputs (both papers and patents) where it is appropriate and justifiable to do so.

In theory, UCD could increase its total citations by 5% if each paper cited an additional colleague's research.

Author more review papers, where they are merited

On average, review papers attract twice as many citations as original articles, so consider writing one when appropriate. Review papers may be a natural outcome of a research project, documenting the state of the art.

If UCD were to double the number of review papers that it publishes over a 5-year period, the citation rate could be boosted by up to 10%.

Add more references to papers

An easy way to boost a paper's citations is to simply add more references, but only when it is justifiable to do so. This can help bring your work to the attention of authors of cited papers, and can increase recognition and citation of your work. Many conferences and journals impose no limit on the number of references.

A long reference list at the end of a research paper may be the key to ensuring that it is well cited, according to (opens in a new window)an analysis of 100 years' worth of papers.

Periodically update seminal papers

Another easy way to increase the reach of your outputs is to author regular updates of papers that were highly cited in the past.

UCD Research has estimated an increase in total citations of up to 5% by updating such papers.

Consider additional tactics

Additional advice on increasing citations can be found on various websites, like in the 33 tips in (opens in a new window)this article and these 5 in (opens in a new window)this one. Perhaps you can find more elsewhere.

HOW TO WRITE AN EFFECTIVE

IMPACT SECTION

Links only work in the PDF version of this infographic.

Most major funding bodies around the world consider impact a crucial part of their research programmes. So, when you apply for funding, they expect you to articulate the potential impact of your research on society.

A lot of researchers leave this section of the grant application blank until the last minute. But with these tips you will be able to write a concise and compelling impact section, giving yourself the best chance of being funded.

Impact is the demonstrable contribution that excellent research makes to society and the economy.

REACH AND SIGNIFICANCE

Impact is made up of two things: reach and significance. The biggest impact has both, but one or the other can still be meaningful.

Reach refers to how widespread the impact is, or how many beneficiaries there are.

Significance refers to how important or valuable the impact is to each beneficiary.

So, saving one life is profoundly significant at a small scale. Slightly enriching a million lives is large-scale but of lower significance. Ideally, scale and significance will be judged relative to the academic discipline and the scope of the research.

2. CONSIDER THE FUNDER

Many funders have web pages dedicated to impact. Read these to learn what particular funding agencies consider impact, and what they don't. Different funders may also favour particular types of impact, like economic, health, technological or political. Familiarise yourself with these preferences, and make sure they come across in your application.

Don't forget to read the call document for the funding programme you are applying to. This will likely have additional guidance.

Click the logos above to see how other organisations talk about impact.

Dedicated help pages on the UCD intranet give information about specific calls, including background information, closing dates, UCD Research contact people, internal procedures, and external links. Read these.

Help pages for some calls have links to additional guidance documents with dedicated sections on impact.

3. GET INSPIRED

In general, your impact section should not discuss impact within academia. Don't get distracted writing about citations, prestigious publications and h-indexes. Think about the impact on wider society: who or what in the "real world" stands to benefit from your work?

For inspiration, you may wish to read impact sections from successful applications. Ask peers in your School or College if you can take a look at theirs. Examples can also be found elsewhere on the web. But be wary of reading impact sections out of context – it is important to understand how they fit into the application as a whole.

Impact can come in many forms, and can be arrived at in many ways. There is no one-size-fits-all approach. Don't lazily copy and paste someone else's impact plan; think carefully about what your own research can offer.

4. USE THE CANVAS

Take 20 minutes to fill out the UCD Impact Planning Canvas.

This flexible tool will help you gather material for your impact section, prompting you to consider important questions, like these:

What real-world challenges does your work address?

Who in society will benefit from your research?

What evidence will you collect to demonstrate impact?

Watch our video tutorial for filling out the Canvas, available in the Impact Toolkit.

5. FOCUS ON BENEFICIARIES

We generally like to think about those who stand to benefit from our research. But some stakeholders may experience negative impacts.

It's important to consider these groups as well, and how their input can be incorporated into the project.

When filling out the Canvas, you need to think about who will be affected by your research. As this is arguably the most important aspect of your impact section, it warrants a little extra consideration...

Be precise

Don't just say Government or industry or the public. Which organisations, teams or individuals will benefit? How will they benefit? How will you engage with them? Why is this the best way of working with them?

Consult

The world is a big, complex place. You probably won't be aware of all the potential beneficiaries of your research. Ask your colleagues and external contacts to help you conduct a stakeholder analysis.

Prioritise

Once you've identified your stakeholders, consider how significantly each could benefit from your work, and how much influence they have over your ability to create impact.

Reach out

Pick a handful of beneficiaries with high interest and influence, and contact them. If possible, do this before you submit your application. They may be able to help you craft a more convincing impact section.

Listen

Two-way dialogue is usually better than one-way communication of your findings. Listen to your stakeholders and adapt to meet their needs. This is far more likely to lead to meaningful impact.

Be clear about your impact goals.

What impacts do you expect to create, and when? What are the milestones? You might want to categorise your goals as short-, medium- or long-term. What evidence will you gather throughout the project to demonstrate your impact? How will you evaluate this evidence to see if you are on track?

Your goals should be inspirational yet feasible. They should not simply be about communicating your outputs; they should be about creating real change in the world.

Every goal should be supported by appropriate activities.

Be clear about how much this will cost. You may need additional resources to help create impact, whether that's for running

an advisory panel of stakeholders, hosting a workshop, developing communications materials, or organising public dialogue events.

Remember: activities like public dialogue are not impact in and of themselves, but they can be an important part of the impact pathway if they contribute to change.

8. BE CONVINCING

You know who your beneficiaries are, and you've written some ambitious but realistic impact goals. You now need to convince the reviewers that you can make it happen.

Credentials

Have you helped foster impact before? Have others on your team? Let the reviewers know that you have a successful track record.

Wider interest

Are your beneficiaries actually interested in this research? Prove it! Include evidence of public interest in the topic. Write about the stakeholders involved in your project. Perhaps they can give you a quote explaining their interest?

Cross-references

Don't limit impact to the impact section. Show you're serious about making a difference by referring to impact elsewhere in your application, like in your research plan.

9. USE PLAIN ENGLISH

Impact sections are often read by lay members of the funding panel, so use every-day language instead of technical jargon. And use subheadings to make the section as clear and easy to read as possible. Consider asking a friend or family member check that non-experts can understand your draft. Better yet, ask an impact expert to review it.

Since you will often be constrained by word count, be punchy. Avoid long sentences and paragraphs, and don't repeat information – every sentence should say something new.

Use the tips below to keep your word count down and your language accessible.

KEEP IT ACTIVE (MOSTLY)

Use the active voice to keep your writing crisp and clear. So don't say The policy will be influenced by my research. Say My research will influence the policy.

Don't say 200 people were hired by the company. Instead, say The company hired 200 people.

But the passive voice is useful if you don't know (or it doesn't matter) who or what is doing the action. For example:

UCD is known for the impact of its research.

AVOID CUMBERSOME WORDS AND PHRASES

At the present time can be replaced with Now. Prior to is clunkier than Before.

Utilise has a specific meaning – try Use.

In light of the fact that can be changed to Because. Ameliorate could be replaced with Improve.

The great enemy of clear language is insincerity. When there is a gap between one's real and one's declared aims, one turns as it were instinctively to long words and exhausted idioms, like a cuttlefish spurting out ink.

George Orwell

LIMIT YOUR USE OF ABBREVIATIONS

Try not to use more than three acronyms or initialisms (like NASA or DNA). Unless widely known, like those above, define each abbreviation when first used. Remove an abbreviation (or other technical term) if you only use it once.

Avoid two-letter abbreviations if possible.

Writing an impact case study

Find out what makes a good impact case study, read our guide on writing one, familiarise yourself with our case study template, and take a look at some examples.

UK REF: Examples of impacts and indicators

In 2019, the UK REF published a document entitled ‘Panel criteria and working methods’, which sets out the assessment criteria and working methods of the main and sub-panels for the Research Excellence Framework (REF) 2021.[1]

Importantly, this document includes an Annex (page 77) that gives examples of research impact and how their reach and significance might be indicated. This information is reproduced in the tables on the following pages.

These examples and indicators are grouped according to the following areas of impact:

The REF document notes that these areas are indicative only: in practice, much impact will cross boundaries between areas or go beyond them. In addition, the 'indicators' are listed independently of the 'types of impact' and are not intended to link to a specific impact example listed.

[1] https://www.ref.ac.uk/publications/panel-criteria-and-working-methods-201902/

Area 1: Impacts on the health and wellbeing of people, and animal welfare

Impacts where the beneficiaries are individuals and groups (both human and animals) whose health outcomes have been improved, whose quality of life has been enhanced (or potential harm mitigated) or whose rights or interests have been protected or advocated through the application of enhanced policy and practice for individuals or public health activities.

Examples of impacts	Indicators of reach and significance

• Outcomes for patients/users or related groups have improved. • Public health or wellbeing has improved. • Quality of life in a developing country has been improved by new products or processes. • A new clinical or lifestyle intervention (e.g. drug, diet, treatment or therapy) has been developed, trialled with patients/users, related or other groups (e.g. community samples), and definitive (positive or negative) outcome demonstrated. • Patient health outcomes have improved through, for example, the availability of new drug, treatment or therapy, diagnostic or medical technology, changes to patient care practices, or changes to clinical or healthcare guidelines. • A new diagnostic or clinical technology has been adopted. • Disease prevention or markers of health have been enhanced by research. • Misleading health claims identified by research are not included in food packaging. • Care and educational practices have changed. • Clinical, dietary, health or social care guidelines have changed. • Changes to health or social care training guidelines.	• Measures of improved clinical outcomes, public behaviour or health services (lives saved, reduced infection rates). • Measures of improved wellbeing. • Evidence from clinical trials. • Measures of improved patient/user outcomes, public health or health services. • Documented changes to clinical and/or public health guidelines (documented references to research evidence in guidelines). • Evidence of enhancement of patient/user experience. • Evidence of take-up and use of new or improved products and processes that improve quality of life or animal welfare in any given context, e.g. developing countries. • Evidence of the number of animals no longer used in research or a specific sector (e.g. per test, drug, laboratory, or leisure industry). • Documented changes to animal welfare codes or guidelines.

Examples of impacts	**Indicators of reach and significance**

• Decisions by a health service or regulatory authority (to take, or not to take action) have been informed by research. • Public health and quality of life has been enhanced through, for example, enhanced public awareness of a health risk, enhanced disease prevention or, in developing countries, improved water quality or access to health and social care. • The user experience has improved. • Increased patient/user involvement in shaping and implementing policy and practice. • Public awareness of a health risk or benefit has been raised. • The control of diseases has changed in developing countries. • Development or adoption of new indicators of health and wellbeing. • Development of policy and practice regarding medical ethics, health services or social care provision. • Influence on CPD and training standards. • Influence or shaping of relevant legislation. • Influencing policy or practice leading to improved take-up or use of services. • Improved provision or access to services. • Animal health and welfare has been enhanced by research. • Use of animals in research has been reduced, refined or replaced.	

Area 2: Impacts on creativity, culture and society

Impacts where the beneficiaries may include individuals, groups of individuals, organisations or communities whose behaviours, creative practices, rights, duties and other activity have been influenced.

Examples of impacts	Indicators of reach and significance

• Collaboration with museum professionals results in enhancements to (cultural) heritage preservation and interpretation, including museum and gallery exhibitions.
 	
• Co-production of new cultural artefacts, including for example, films, novels and TV programmes.
 	
• Generating new ways of thinking that influence creative practice, its artistic quality or its audience reach.
 	
• Inspiring, co-creating and supporting new forms of artistic, literary, linguistic, social, economic, religious, and other expression.
 	
• Collaboration with public arts venues, artists and programming professionals to produce new forms of artistic expression.
 	
• Research-led engagement with marginalised, under-engaged and/or diverse audiences leads to increased cultural participation.
 	
• Developing stimuli to cultural tourism and contributing to the quality of the tourist experience.
 	
• Improvements to legal and other frameworks for securing intellectual property rights.
 	
• Increased understanding of local traditions leads to enhanced cultural preservation in any given context (e.g. developing countries).
 	
• New forms of artistic expression resulting in enhancement of quality of life.
	• *Arts Council England offer guidance and toolkits for evaluating impact:*
	
	  • *https://www.artscouncil.org.uk/quality-metrics/quality-principles*
	
	  • *https://www.artscouncil.org.uk/quality-metrics/quality-metrics*
	
	  • *https://www.artscouncil.org.uk/measuring-outcomes/generic-learning-outcomes*
	
	  • *https://www.artscouncil.org.uk/measuring-outcomes/generic-social-outcomes*
	
	• Testimonials from creative practitioners, curators, media professionals.
	
	• Publication and sales figures both in the UK and overseas, audience or attendance figures (including demographic data where relevant), broadcasting data and other forms of media, download figures, or database and website hits over a sustained period.
	
	• Evaluative reviews in the media.
	
	• Citations in reviews outside academic literature. Independent citations in the media, including in online documents.
	
	• Tourism data, including audience figures and visitor numbers at exhibitions, events, performances.
	
	• Professional evaluations of exhibitions, performances or other outputs.
	
	• Audience/visitor/participant feedback (e.g. through surveys, interviews or focus groups).

Area 3: Impacts on social welfare

Impacts where the beneficiaries include individuals, groups of individuals, organisations or communities whose rights, duties, behaviours, opportunities, inclusion, quality of life and other activity have been influenced.

Examples of impacts	Indicators of reach and significance
• Improved social welfare, equality, social inclusion; improved access to justice and other opportunities (including employment and education). • Engagement with research has enhanced policy and practice for securing poverty alleviation. • Influential contributions to campaigns for social, economic, political and/or legal change through engagement with civil society groups. • Changes to social policy have been informed by research. • Changes to social policy have led to improved social welfare, equality or social inclusion. • Research has contributed to community regeneration or development. • Improved social and educational inclusion of marginalised groups in any given context, for example developing countries. • More effective integration of refugees into host communities. • Enhanced understanding of victims' needs in reconciliation processes in post-conflict states.	• *A beginner's guide to evaluating social return on investment (SROI) can be found here: http://www.socialvalueuk.org/resource/guidance-on-starting-out-on-sroi-2/.* • Documented evidence of changes to social policy. • Measures of improved social equality, welfare or inclusion. • Citations in campaign literature (e.g. leaflets). • Evidence of public debate in the media or other fora being influenced by the research. • Documented evidence of increased social inclusion (e.g. participation figures). • Testimonials from civil society groups and policymakers.

Area 4: Impacts on commerce and the economy

Impacts where the beneficiaries may include businesses, either new or established, the NHS, private health and social care, agriculture or other types of organisation which undertake activity that may create wealth.

Examples of impacts	Indicators of reach and significance

• A spin-out or new business has been created, established its viability, or generated revenue or profits. • Contributing to innovation and entrepreneurial activity through the design and delivery of new products or services. • Decisions are made not to introduce a new process or product as a result of research. • Social enterprise initiatives have been created. • The costs of treatment, health or social care have changed as a result of research-led changes in practice. • Policies have been introduced which have had an impact on economic growth or incentivising productivity. • Gains in productivity have been realised as a result of research-led changes in practice. • Research helps to stimulate foreign direct investment (FDI). • The performance of an existing business has been improved through the introduction of new, or the improvement of existing, products, processes or services; the adoption of new, updated or enhanced technical standards and/or protocols; or the enhancement of strategy, operations or management practices. • Contributing to economic prosperity via the creative sector including publishing, music,	• Evidence of improved cost-effectiveness. • Evidence of service change. • Sales of new products/services. • Business performance measures (e.g. turnover/profits, trends in key technical performance measures underlying economic performance). • Employment figures. • Licences awarded and brought to market; market authorisation. • Demonstrable collaborations with industry (including knowledge transfer partnerships, and contracts). • Commercial adoption of a new technology, process, knowledge or concept. • Business performance measures, for example sales, turnover, profits or employment associated with new or improved products, processes or services. • Jobs created or protected. • Investment funding raised from UK and/or non-UK agencies (venture capital/Business Angel, and so on) for start-up businesses and new activities of existing businesses.

Examples of impacts	**Indicators of reach and significance**

theatre, museums and galleries, film and television, fashion, tourism, and computer games. • Performance has been improved, or new or changed technologies or processes adopted, in companies or other organisations through highly skilled people having taken up specialist roles that draw on their research, or through the provision of consultancy or training that draws on their research. • Potential future losses have been mitigated by improved methods of risk assessment and management in safety- or security-critical situations. • The strategy, operations or workplace practices of a business have changed. • Improved support for the development of 'small scale' technologies. • Improvements in legal frameworks, regulatory environment or governance of business entities. • Better access to finance opportunities. • Enhanced corporate social responsibility policies. • More effective dispute resolution. • Alternative economic models (such as fair trade) have been developed and adopted.	• Priority shifts in expenditure profiles or quantifiable reallocation of corporate, non-profit or public budgets. • Evidence of critical impact on particular projects, products and processes confirmed by independent authoritative evidence, which should be financial where possible. • Evidence of research leading to avoidance of negative outcomes. • Quantitative data relating, for example, to cost-effectiveness or organisational performance. • Tourism data, including audience figures and visitor numbers at exhibitions, events, performances. • Evidence of closing identified skills gaps.

Area 5: Impacts on public policy, law and services

Impacts where the beneficiaries are usually government, non-governmental organisations (NGOs), charities and public sector organisations and society, either as a whole or groups of individuals in society, through the implementation or non-implementation of policies, systems or reforms.

Examples of impacts	Indicators of reach and significance

• Policy debate has been stimulated or informed by research evidence, which may have led to confirmation of policy, change in policy direction, implementation or withdrawal of policy. • Policy decisions or changes to legislation, regulations or guidelines have been informed by research evidence. • A policy has been implemented (including those realised through changes to legislation) or the delivery of a public service has changed. • In delivering a public service, a new technology or process has been adopted or an existing technology or process improved. • The quality, accessibility, acceptability or cost-effectiveness of a public service has been improved. • (Sections of) the public have benefited from public service improvements. • Risks to the security of nation states have been reduced. • The work of an NGO, charitable or other organisation has been influenced by the research. • Legislative change, development of legal principle or effect on legal practice. • Research is used by parliamentarians to develop proposals for new legislation through Private Members' Bills, or to assist scrutiny of legislation	• Documented evidence of use in policy debate (e.g. at a parliamentary Select Committee, material produced by NGOs). • Citation in a public discussion, consultation document or judgement. • Evidence of citation in policy, regulatory, strategy, practice or other documents. • Direct citations of research in parliamentary publications such as Hansard, committee reports, evidence submissions, or briefings. • Acknowledgements to researchers on webpages, in reports or briefings. • Evidence of influence on a debate in public policy and practice through membership of or distinctive contributions to expert panels and policy committees or advice to government (at local, national or international level). • Quantitative indicators or statistics on the numbers of attendees or participants at a research event, or website analytics for online briefings. • Qualitative feedback from participants or attendees at research events. • Data to show close working relationships with members or staff. For example, the number of meetings held, minutes from these meetings, membership of working groups, co-authoring of publications.

Examples of impacts	**Indicators of reach and significance**

and inform amendments to other bills such as those introduced by government. • Research recommendations are taken up by policymakers through membership of a government advisory committee. • Policymakers make use of research-based critical evidence synthesis in developing policy. • Government analysts adopt innovative methodological or approach-based advice from researchers. • Forms of regulation, dispute resolution or access to justice have been influenced. • Research is used to change current processes or services, or identify new services to be provided. • Research into the languages and cultures of minority linguistic, ethnic, religious, immigrant, cultures and communities used by government, NGOs, charities or private sector to understand and respond to their needs. • Research helps to highlight issues of concern to parliamentarians and contributes to new analysis of existing issues. • Research helps parliamentarians and staff to identify inquiry topics, shape the focus of inquiries, inform questioning of witnesses, and underpin recommendations. • Research equips parliamentarians, their staff, and legislative staff with new analytical or technical skills, or refreshes existing ones. • International policy development has been influenced by research.	• Testimonials from members, committees or officials, where available. • Documented evidence of influence on guidelines, legislation, regulation, policy or standards. • Documented evidence of changes to public policy, legislation, regulations or guidelines. • Analysis by third-party organisations of parliamentary proceedings or processes, for example studies of the passage of particular pieces of legislation. • Documented evidence of changes to international development policies. • Evidence of use of process/technology. • Measures of improved public services, including, where appropriate, quantitative information; such information may relate, for example, to the quality, accessibility or cost-effectiveness of public services. • Measures of improved inclusion, welfare or equality. • Satisfaction measures (e.g. with services). • Formal partnership agreements or research collaboration with major institutions, NGOs and public bodies. Consultancies to public or other bodies that utilise research expertise. • Evidence of engagement with campaign and pressure groups and other civil organisations (including membership and activities of those organisations and campaigns) as a result of research. • Documented evidence of changes to international development policies.

Examples of impacts	Indicators of reach and significance
• Allocation and/or distribution of Official Development Assistance (ODA) has been influenced by research. • Policy and practice of international agencies or institutions have been influenced by research. • Research stimulates critical public debate that leads to the non-adoption of policy.	• Measures of improved international equality, food security, welfare or inclusion.

Area 6: Impacts on production

Impacts where the beneficiaries are individuals (including groups of individuals) whose production has been enhanced.

Examples of impacts	Indicators of reach and significance
• Production, yields or quality have been enhanced or level of waste has been reduced. • Research helps to create routes to international innovation and market impact. • Research leads to improvement in productivity and resource-use efficiency. • Decisions by regulatory authorities have been influenced by research. • More efficient production, including food production, for example where costs have been reduced. • Animal husbandry methods have changed. • Management practices in production businesses have changed.	• A new product has been recommended for use or adopted. • Development of a new plant variety or crop protection product which has entered the appropriate national or international regulatory testing system. • Evidence of improved sustainability. • Documented changes to working guidelines. • Documented evidence of improved working practices and/or level of production.

Area 7: Impacts on practitioners and delivery of professional services, enhanced performance or ethical practice

Impacts where beneficiaries may include organisations or individuals, including service users, involved in the development and/or delivery of professional services and ethics.

Examples of impacts	Indicators of reach and significance
• Professional standards, guidelines or training have been influenced by research. • Professional methods, ideas or ethics have been influenced by research. • Professionals and organisations are able to adapt to changing cultural values as a result of research. • Contribution to continuing personal and professional development. • Practitioners/professionals/lawyers have used research findings in conducting their work. • Professional bodies and learned societies have used research to define best practice, formulate policy, or to lobby government or other stakeholders. • Workforce planning has been influenced by research. • Educational or pedagogical practices and methods have changed in primary, secondary, further or higher education, within or beyond the submitting unit. • Practices have changed, or new or improved processes or methods have been adopted, by individuals, companies or other organisations, through the provision of training or consultancy. • The development of expert systems has been influenced in areas such as medicine, human resources, accounting, and financial services. • The quality, efficiency or productivity of a professional service has improved.	• Documented change to professional standards, performance or behaviour. • Evidence of adoption of best practice (e.g. by educators or law enforcement personnel). • New or modified professional standards and codes of practice. • New or modified technical standards or protocols. • Documented changes in knowledge, capability or behaviours of individuals benefiting from training. • Evidence of debate among practitioners, leading to developments in attitudes or behaviours. • Literature/web information from practitioners and advisers, including the research findings and how they are applied in practice. • Traceable reference to inclusion of research in national or international industry standards or authoritative guidance. • Traceable references by practitioners to research papers that describe their use and the impact of the research.

• Expert and legal work or forensic methods have been informed by research. • Law enforcement and security practices have changed. • Cessation of practices shown by research to be ineffective.	

Area 8: Impacts on the environment

Impacts where the key beneficiaries are the natural, historical and/or built environment, together with societies, individuals or groups of individuals who benefit as a result.

Examples of impacts	**Indicators of reach and significance**

• The environment has been improved through the introduction of new product(s), process(es) or service(s); the improvement of existing product(s), process(es) or services; or the enhancement of strategy, operations or management practices. • New methods, models, monitoring or techniques have been developed that have led to changes or benefits. • Policy debate on climate change or the environment has been influenced by research. • Policy debate on the environment, environmental policy decisions or planning decisions have been stimulated or informed by research and research evidence. • Improved design or implementation of environmental policy or regulation. • The management or conservation of natural resources, including energy, water and food, has changed in a developing country. • The management of an environmental risk or hazard has changed.	• Sales of new products, or improvements in existing products, that bring quantifiable environmental benefits. • Verifiable influence on particular projects or processes which bring environmental benefits. • Evidence of generic environmental impact across a sector, confirmed by independent authoritative evidence. • Traceable reference to inclusion of research into government policy papers, legislation and industry guidance. • Traceable reference to the influence of research in planning decision outcomes. • Documented case-specific improvements to environment-related issues.

Examples of impacts	**Indicators of reach and significance**

• Changes in environmental or architectural design standards or general practice. • Influence on professional practice or codes. • Changes in practices or policies affecting biodiversity. • The operations of a business or public service have been changed to achieve environmental (green) objectives. • Direct intervention, based on research evidence, has led to a reduction in carbon dioxide or other environmentally damaging emissions. • Increased understanding of the environmental impact of a product or process means that it is not adopted by industry.	

Area 9: Impacts on understanding, learning and participation

Impacts where the beneficiaries are individuals, communities and organisations whose awareness, understanding, participation or engagement have been enhanced as a result of research.

Examples of impacts	**Indicators of reach and significance**

• Enhanced cultural understanding of issues and phenomena; shaping or informing public attitudes and values. • Public interest and engagement in research has been stimulated through, for example, the enhancement of science education in schools. • The awareness, attitudes or understanding of (sections of) the public have been informed, and their ability to make informed decisions on issues improved, by engaging them with research.	• *Many organisations use the Generic Learning Outcomes (GLO) to evaluate impacts on knowledge and understanding: https://www.artscouncil.org.uk/measuring-outcomes/generic-learning-outcomes.* • *The Heritage Lottery Fund also offers guidance on evaluating participation and learning: https://www.hlf.org.uk/evaluation-guidance.* • Documented evidence that public understanding has been enhanced through active collaborative involvement in research.

Examples of impacts	Indicators of reach and significance
• Public or political debate has been shaped or informed by research; this may include activity that has challenged established norms, modes of thought or practices. • Contributing to processes of commemoration, memorialisation and reconciliation. • Contributing to a wider public understanding of basic standards of wellbeing and human rights conceptions. • Contributing to widening public access to and participation in the political process. • Professionals and organisations have adapted to changing cultural values. • Research has challenged conventional wisdom, stimulating debate among stakeholders. • Increased understanding of gender roles in any given context (e.g. developing countries) has improved equality. • Changes to education or the school curriculum have been informed by research. • Influencing the design and delivery of curriculum and syllabi in schools, HEIs or other educational institutions. • Research results in changes to the delivery of vocational courses and subsequently changes to professional practice. • Reduced gap in academic attainment for students with protected characteristics.	• Documented evidence of policy debate (e.g. in Parliament, the media, material produced by NGOs). • Public debate in the media. • Documented shift in public attitude (e.g. to sexual behaviour, or social factors in health). • Documented evidence of enhanced awareness of health risks and benefits by consumers. • Citation in a public discussion, consultation document or judgement. • Citation by journalists, broadcasters or social media. • Evidence of increased public uptake of scientific training, through public engagement. • Information about the number and profile of people engaged and types of audience. • Evidence of secondary reach, for example from follow-up activity or media coverage. • Evidence of sustainability through, for example, a sustained or ongoing engagement with a group, a significant increase in participation in events or programmes or use of resources. • Evidence of engagement with campaign and pressure groups and other civil organisations (including membership and activities of those organisations and campaigns) as a result of research. • Measures of increased attainment and/or measures of improved engagement with science in non-HE education. • Evidence of use of education materials arising from the research.

Developing an effective impact section

Learn what makes a compelling impact section in any funding proposal. Incorporate meaningful impact planning and give yourself the best chance of being funded. Read more >

Pathways to impact: writing a successful Horizon Europe proposal

Get a sense of what the European Commission's looking for in the "pathways towards impact" section of your application.

Horizon Europe – The EU's major funding programme for research and innovation – is inherently impact driven, geared towards funding research that's likely address societal challenges and the European Commission's policy priorities.

Application structure and evaluation criteria

Your application will be evaluated and ranked against various (opens in a new window)award criteria. Part B of your application – the technical description – is broken up into three parts:

- Excellence
- Impact
- Quality and efficiency of the implementation.

The impact section itself, is made up of three sub-sections:

- 2.1 Project's pathways towards impact

- 2.2 Measures to maximise impact - Dissemination, exploitation and communication
- 2.3 Summary canvas

In the impact section, you will be scored according to how well your application demonstrates:

- **Credibility of the pathways** to achieve the expected outcomes and impacts specified in the work programme, and the likely **scale and significance** of the contributions due to the project.
- **Suitability and quality of the measures** to maximise expected outcomes and impacts, as set out in the dissemination and exploitation plan, including communication activities.

Reviewers are given standard protocols for evaluating and scoring impact. But reviewers will likely come from different backgrounds and may interpret these protocols differently. Use the tips below to make sure your impact section convinces your reviewers, no matter what their background is.

7 tips for developing a competitive Horizon Europe impact plan

1. Remember the basics

The impact section in a Horizon Europe application isn't fundamentally different from impact sections in other applications, so familiarise yourself with our general tips. For example, remember to use plain English, ensure stakeholder communication is two-way, describe your track record of creating impact, and use subheadings.

Make sure you start by filling in the UCD Impact Planning Canvas or the summary canvas in section 2.3 of your application, which share many similarities. This will help you think in a structured way about your stakeholders, pathways to impact, and measures of impact.

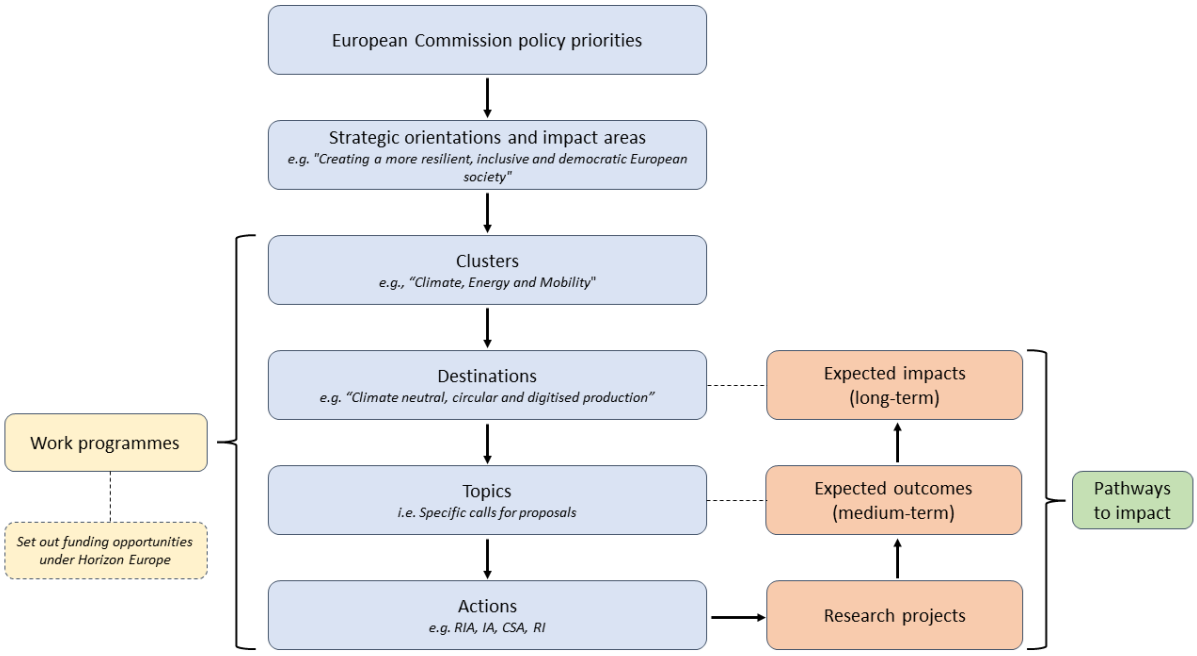
And remember, don’t confine impact to the impact section. Show you're serious about making a difference by embedding impact elsewhere in your application, like in the methodology, state of the art, activities, tasks, and allocated budget.

2. Align your impact goals with the Commission's

Take a moment to understand how Horizon Europe is structured, so that you can see where your proposal fits within the bigger picture, and you can map your impact goals to those outlined by the Commission in different documents.

At the very highest level, Horizon Europe legislation defines three broad types of impact, which are divided up into nine key impact pathways, so that the Commission can track and communicate the difference Horizon Europe is making around these nine storylines.

The (opens in a new window)Horizon Europe Strategic Plan 2021-2024 describes four key strategic orientations, supported by 15 impact areas. These 15 impact areas are structured by the six clusters that make up Horizon Europe’s second Pillar, “Global Challenges and European Industrial Competitiveness”.



of

Each cluster has an associated work programme, which is made up of “destinations” that articulate long-term expected impacts. In turn, destinations are supported by calls/topics that list expected medium-term outcomes.

This may all sound confusing. But the most important thing is to **analyse the call topic in detail** to assess how you can form a consortium that can address the expected outcomes, and **read the relevant destination** to understand the Commission’s higher-level, longer-term expected impacts.

Your pathway to impact should describe how your project's results will be disseminated, exploited and communicated in order to 1) address the expected outcomes in the topic and 2) contribute to the wider impacts outlined in the destination. Make these links explicit.

3. Set clear impact goals

The success of your impact section depends on how well you articulate these goals. It’s unlikely that your project can address every expected outcome and impact mentioned in the topic and destination, so carefully pick those that are most relevant (read the call document to find out how many you’re supposed to address).

Remember, make your impact goals SMART:

- **Specific**. Don’t be vague: spell out exactly who or what will benefit from your research (the reach) and how much (the significance).
- **Measurable**. For each impact goal, specify indicators that you can use to track progress. Make sure the data for your indicators are obtainable, and that they will give clear evidence of the reach and significance of the impact (and demonstrate how your research contributed). Consider providing baseline data, describing the current situation to contextualise your goal.
- **Achievable**. Your goals should be backed up with evidence to convince the reviewer that they’re feasible, and that you’re capable of creating impact within the stated budget. If you foresee any potential barriers, explain how you will overcome them.

Some applicants like to summarise their barriers and mitigation strategies in a separate table or paragraph.

- **Relevant**. Your impact goals should align with those set out in related documents (see Tip 2 above).
- **Time-bound**. Articulate the various milestones on the pathway to impact. What exactly do you want to achieve by when?

Reviewers should be able to take in your impact goals at a glance. Make it as easy as possible for them. Some researchers choose to present a summary of their impact goals or impact pathways in a table (or even a well-designed infographic) at the top of the impact section. This can almost be a condensed version of the canvas in section 2.3. There are many approaches you can take, but these tables typically link each goal with stakeholders, indicators, timelines, and/or activities.

Then use the rest of sections 2.1 and 2.2 to go into detail. The reviewers don't just want to know *what* the impacts are, but *how* they will be achieved. Describe your impact activities clearly. Why are they the best way of meeting your impact goals? The reviewers only want to see activities that make a significant and direct contribution to reaching the relevant outcomes and impacts, so avoid including any activity that is not explicitly linked to a goal.

4. Identify and involve key stakeholders

Meeting your impact goals will require connecting with different stakeholders in society. As a first step, map out the different groups, organisations and individuals who might be affected by your research, as well as those who have some influence over it.

If possible, work with colleagues on your stakeholder analysis. Collectively, you will paint a more thorough picture. And be as specific as possible: don't just mention "government", drill down into the specific departments, teams, or even individual contacts.

The summary canvas is a good place to start your stakeholder and public analysis. Professor Mark Reed at Fast Track Impact also offers a (opens in a new window)useful template.

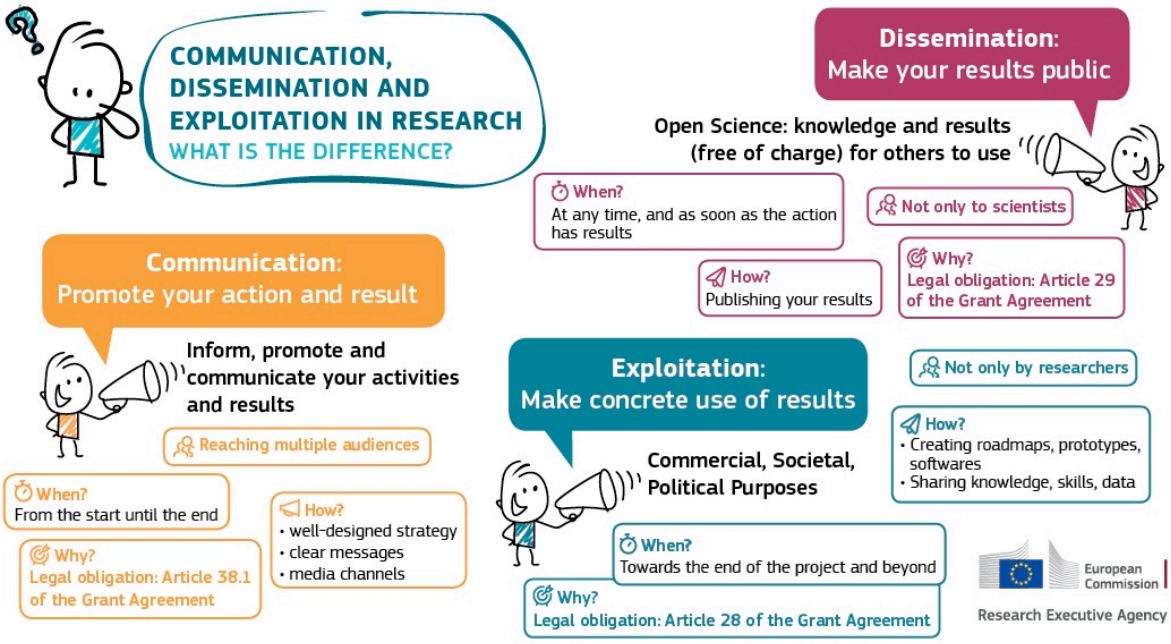
Once you've identified and prioritised your stakeholders and publics, reach out to them. Listen to representatives from these interested or affected groups, and get their feedback on your plan. Your pathway to impact will be much stronger and more convincing if you co-develop it with your stakeholders. Don't disingenuously tack this engagement on at the end of your application – your pathways to impact will not be credible.

5. Understand dissemination, exploitation and communication

In section 2.2, you need to describe your measures to maximise impact. These measures are categorised under three headings: dissemination, exploitation, and communication (D, E & C). Take the time to understand the difference between these terms:

- **Communication** is the broadest type of activity. It's about sharing the project and results with wider audiences, informing society at large about research and its benefits.
- **Dissemination** means sharing your research results with society and the research community, telling people what you have achieved. It's about making your results visible and facilitating uptake.
- **Exploitation** is the most specific. It's about connecting your results with those who can use them for a particular purpose (like policymaking and commercialisation, for example).

Here's a useful summary graphic from the European Commission:



Crucially, make explicit links between your proposed D, E & C activities, your key stakeholders, and the impact goals you've outlined in 2.1. Again: never include an activity that isn't linked to a goal. **Make your actions specific**, and ensure you have the relevant skills and expertise on the team to carry them out.

6. Demonstrate sustainability and scalability

Throughout the impact section, give evidence of sustainability. Convince the reviewers that you have planned for longevity; that the project will live on after the funding stops. Ensure your impact goals and measures reflect these longer time horizons.

Similarly, give evidence of scalability: how will you move from small- to larger-scale impact? Your activities and measures of impact should reflect this. Show the reviewers that you're ambitious (but realistic) about the impact you can achieve, and that you intend to track the impact as it grows in scale.

7. Pay attention to intellectual property management

Where necessary, your application should address intellectual property, knowledge protection and regulatory issues. The Commission want to know that your project is commercially protected. Your proposal should include all the measures required to facilitate the commercial exploitation of the project.

Some reviewers also consider intellectual property rights a strong indicator of future impact. So make sure you have an IP strategy, if applicable, and show the reviewers that you take knowledge protection seriously. See the (opens in a new window)European IP Helpdesk for more information.

Creating a narrative CV

Funders are increasingly requesting “narrative CVs” in funding applications, instead of the more familiar metric-driven CVs. To develop yours, see our guide on the UCD Research Portal. (opens in a new window)Read more >

Capture

The information below will help you work out how to evidence your impact. For more information on the related concept of impact tracking – i.e. identifying where your research is being picked up and used – see our Monitor page.

Why evidence impact

There are many reasons to gather evidence of research impact. You might need to report back to your funder on your project's progress, including progress towards your impact goals. Or perhaps you want to write an Impact Case Study with a view to entering our Impact Competition. Or maybe you're going for promotion and have noticed that 'impact' is a heading in UCD's Development Framework for Faculty.

Considering impact early in the project will ensure that you have plenty of time to collect the right evidence.

What to evidence

Ultimately, to tell a convincing impact story, you need to collect evidence of three things:

- **Reach** – how widespread the impact is. In other words, how many beneficiaries there are. Are the impacts at a local, regional, national or international level?
- **Significance** – how important or valuable the impact is for each beneficiary.
- **Attribution** – showing how your research actually contributed to the impact.

This might include records of meetings with policymakers, links to media appearances, attendance figures at events inspired by your research, testimonials from beneficiaries, data on the uptake of your tool or device, and so on.

How much evidence should you gather? Enough to convince people – your funder, case study reader, promotions panel – that your research had the impact you claim.

Examples of impacts and evidence

To get a sense of how different types of impact can be evidenced, take a look at this useful document from the UK REF.

In 2022, Campus Engage published a number of resources on Engaged Research and Innovation for Societal Impact. This includes an (opens in a new window)Engaged Impact Framework with impact categories and performance indicators, based on a synthesis of existing categories and indicators used across Ireland and Europe. You can also explore some (opens in a new window)examples of impact evidence and metrics offered by Campus Engage.

RMS Profiles

As long as you record your evidence of impact, it doesn't really matter where. You might use software like (opens in a new window)Evernote, create a spreadsheet or keep notes in the back of a notebook. One compelling option is to use the UCD's RMS profiles system, which includes modules specifically designed to create records of impact and public engagement activities.

Training opportunities

To learn about our impact seminars and workshops, please contact UCD's Research Impact Officer.

Reflections on Research Impact video series

For more information on evidencing impact, take a look at this episode of NUI Galway's (opens in a new window)nine-part video series, created by impact consultant Saskia Walcott:

Transcript

0:00

[Music]

0:13

welcome to reflections on research

0:14

impact

0:15

this episode is about identifying and

0:17

obtaining evidence

0:18

and we will cover what that means what

0:20

to collect how to go about it

0:22

and when to do it

0:26

when thinking about evidence of impact

0:28

there are five things

0:30

to keep at the top of your mind and i'm

0:31

going to go through them in the next few

0:33

slides

0:34

the first is that evidence of impact

0:36

goes beyond research uptake

0:39

what you want to do is to show evidence

0:41

of sustained use and application of the

0:43

research

0:44

and this is the really important bit

0:46

evidence of the benefits

0:48

or sometimes negatives that have

0:50

resulted

0:51

so if you ask a research user for a

0:53

statement if all they say is that

0:55

working with dr

0:56

x was great it's nice but it's a bit

0:59

useless as evidence of impact

1:01

what you want is a statement that

1:03

explains what benefits

1:04

or again possibly negatives they've

1:07

observed

1:08

with some concrete examples or other

1:10

official data to back it up

1:16

the second point is when it comes to

1:17

research impact and the material that

1:19

you collect

1:20

the definition of evidence is a little

1:22

looser than you would expect from

1:24

research evidence

1:26

it's a question that comes up sometimes

1:28

in training workshops

1:29

how rigorous does the evidence need to

1:31

be

1:32

and my response is that it has to be

1:34

factual and hold up under scrutiny

1:36

but for some people it can be helpful to

1:38

understand evidence as indicators of

1:40

change

1:41

rather than use the term evidence so

1:43

i'll be using both phrases

1:45

interchangeably

1:46

during this episode

1:49

impact builds incrementally over time so

1:51

the process of collecting evidence of

1:53

research

1:53

impact is not a one-off one-time

1:56

occurrence

1:57

make an effort to acquire evidence as

1:59

you go

2:01

and though that evidence will eventually

2:02

become out of date

2:04

what it does is to provide a breadcrumb

2:06

trail to follow when in five or ten

2:08

years time

2:08

you want to write an account of your

2:10

research impact you'll be grateful at

2:12

that point that you have some idea of

2:14

what the impacts might be and where to

2:15

start

2:20

the narrative account of impact has

2:21

proved to be the most favored method to

2:23

report research impact around the world

2:26

this is because while metrics can show

2:27

you what's changed only a narrative

2:29

account

2:30

also captures the significance and

2:31

meaning of that change

2:33

so the guidance in this episode is

2:35

angled towards identifying and

2:36

collecting evidence you need to write an

2:38

impact case study at some point in your

2:40

career

2:41

and of course these methods will also

2:42

help you when you're reporting back to

2:44

funders

2:46

the final point about impact evidence is

2:48

remember that you'll need a mix of

2:50

indicators to create a credible and

2:51

convincing narrative account

2:53

the best case studies interweave a

2:55

variety of different data types

2:57

qualitative and quantitative and source

2:59

independent reports or official

3:01

documentation or records

3:03

to demonstrate and corroborate the

3:04

impact that's being claimed

3:07

essentially you're aiming for a

3:08

triangulation of evidence

3:12

so to recap those five points in reverse

3:14

order

3:15

first collect a variety of different

3:17

types of evidence

3:19

because as a modern researcher at some

3:21

point in your career you're going to be

3:22

asked to write a narrative account of

3:24

your research impact

3:26

collect evidence over time because this

3:28

creates a helpful breadcrumb trail

3:30

and remember evidence of impact is

3:32

essentially indicators of change

3:34

so don't get too tired up in knots about

3:36

it and finally and most importantly

3:39

what you collect must go beyond simply

3:41

confirming research uptake

3:43

and capture the results of the

3:44

application of the research findings

3:49

so we've covered the top five messages

3:51

about evidence so now let's look at what

3:53

you might collect as indicators of

3:54

change

3:56

this slide of clouds shows some of the

3:58

evidence types used by uk researchers

4:00

who submitted impact case studies as

4:02

part of the uk research excellence

4:03

framework

4:05

appropriate evidence will of course

4:06

differ greatly depending on the impact

4:08

and its stage of maturity

4:10

but as you can see these are all very

4:12

varied and quite different

4:14

indicators of change for example

4:17

you've got audience figures and google

4:19

analytics which are quantitative

4:21

indicators

4:22

that give an indication of the reach of

4:24

the impact

4:26

you've also got people using quotes or

4:28

citations of research from research

4:30

policy documents or extracts from

4:32

parliamentary records or

4:33

or select committee hearings using those

4:36

as evidence

4:37

to show research influence or

4:38

contribution to policy debate

4:43

in the next few slides i've created

4:45

fictional impact scenarios to give you

4:46

examples of the type of impact evidence

4:49

that might be appropriate

4:54

in this scenario researchers have

4:56

licensed the manufacture of a new

4:57

clinical technology

4:59

based on university of galway research

5:01

to a commercial company

5:03

the company has sold it to five

5:04

hospitals in ireland and two in germany

5:07

there are potentially three types of

5:08

impact to investigate there's the

5:10

commercial benefit to the company

5:12

the benefit to medical practice of the

5:14

new technology and a third a more

5:16

distant

5:17

impact is the benefit to the patients

5:18

though arguably this is the ultimate

5:21

benefit of the research

5:23

so the commercial impact what are you

5:25

seeking out from them

5:26

well you would want confirmation from

5:28

the manufacturer of the sales and orders

5:31

including the names and locations of the

5:33

hospitals and the dates sold so you have

5:35

confirmation of that you'd also ask them

5:38

if they would share information about

5:40

increasing sales and turnover to

5:42

demonstrate a

5:43

benefit on them commercially you might

5:46

be able to get that from annual reports

5:47

but

5:48

companies can be sensitive about

5:49

supplying precise financial information

5:52

but they may be happy to share with you

5:53

the percentage increase in sales

5:57

another angle to explore with the

5:58

company is weather as well as increasing

6:00

sales

6:01

there's been other benefits such as an

6:03

increase in their workforce or ability

6:05

for them to enter new

6:06

markets this could all be part of the

6:08

commercial impact story for that company

6:13

in terms of impact on practice you would

6:16

need to go to the hospital for that

6:19

ideally you would want to obtain

6:20

statements that corroborate use and

6:22

outlines the improvements the clinical

6:24

practice observed or recorded from use

6:26

of the technology

6:28

these benefits might be faster more

6:31

accurate procedures

6:32

reduction in the diagnosis time frame

6:35

cost savings for the hospital

6:37

or speed your recovery time for patients

6:40

you'll want examples of these benefits

6:42

and ideally some quantification

6:44

too of things like time saved or

6:46

reduction in recovery time

6:49

the third impact area of impact on

6:51

patients

6:53

is can be more difficult to obtain

6:57

but what you're trying to find out from

6:58

them is what the significances

7:01

of those changes for them so if there is

7:03

in swifter recovery time or less pain

7:06

um or time spent in hospital feedback

7:09

from them directly would be really

7:10

helpful

7:11

you might be able to use hospital data

7:13

for that

7:14

but if you want more qualitative

7:16

evidence that captures the

7:18

significance for these patients you may

7:20

want to seek permission to work directly

7:22

with them

7:22

and to obtain that information

7:31

in this impact scenario research from

7:33

the department of built environment has

7:34

played an integral part in shaping

7:36

community regeneration in a deprived

7:38

neighborhood

7:39

and ensuring community input was

7:40

integral to council decision making

7:43

the two types of impact in this example

7:46

there is impact on the local government

7:47

decision making

7:48

and impact on the neighborhood

7:51

in terms of impact on local government

7:53

decision making you'd be looking to

7:55

source publicly available documents such

7:57

as

7:58

council reports or government or civil

8:00

society evaluations

8:02

showing citations or acknowledgement of

8:04

the research input

8:06

you'd also want to back this up with a

8:07

statement from a senior official

8:08

involved in regeneration that describes

8:11

the value of the research in the product

8:12

design and ensuring the community was

8:15

part of that decision making

8:19

in terms of the impact on the community

8:21

evidence for this might come from

8:22

publicly available council reports or

8:24

government or civil society

8:26

evaluations of the regeneration if

8:28

something like that has been

8:30

commissioned

8:30

those are very valuable if you can get

8:32

hold of material of that nature

8:35

you can also seek feedback directly from

8:37

residents themselves

8:38

with them explaining the difference the

8:39

regeneration is made to them personally

8:41

or to their families

8:44

you can also think about seeking

8:45

artificial figures to show that

8:47

what change has occurred more right

8:49

widely

8:51

and that it's genuine and sustained

8:53

improvement for the neighborhood

8:55

for example police figures that show a

8:58

steady reduction in crime

9:00

or data that identifies increased

9:02

participation by young people in the

9:03

community

9:04

that leads to greater numbers of them

9:07

finding employment

9:08

or choosing further education on leaving

9:10

school

9:11

all of those elements together will show

9:13

how the research has contributed

9:15

to hopefully an improved outcome for

9:17

that neighborhood

9:20

in this impact scenario researchers

9:22

informed a policy decision to mandate

9:24

young people to take at least one

9:25

foreign landward as part of their

9:26

leaving certificate

9:28

the initial impact is first influencing

9:30

national policy

9:32

but also depending on when the impact is

9:34

being reported there's possibly a

9:35

secondary impact that could be evidence

9:38

which is an increase in employment of

9:39

foreign language teachers and even a

9:41

tertiary impact

9:42

which is an increase in the numbers

9:44

taking foreign language at higher

9:45

education

9:47

so if you want to demonstrate impact and

9:49

policy you'd want to find documented

9:51

evidence of use of the research

9:53

in parliamentary debate or within the

9:55

department of education which you may

9:57

find in things like parliamentary

9:58

records or white papers or reports

10:01

you'd want to back that up with a

10:03

statement for the department of

10:04

education directly

10:05

confirming the contribution of the

10:06

research and how it helped to shape

10:08

decision making

10:11

if it's a few years since the policy was

10:12

passed you might want to look into the

10:14

impact of the implementation of the

10:16

policy itself

10:19

this might be an increase in employment

10:20

for language teachers

10:22

which is a benefit to the economy as

10:23

well as to the individual

10:26

there may also be evidence of an

10:27

increase in numbers taking foreign

10:28

language at university

10:30

demonstrating that may take a bit of

10:32

collation of different sources of

10:34

material

10:35

but the point to take away is that

10:37

depending on when you're collecting

10:38

evidence

10:39

to get the full story of the impact

10:41

you'll probably want to go beyond the

10:42

first change

10:43

and to identify the ripples from that

10:46

change

10:46

and that does take a little bit of

10:48

investigation

10:51

what is clear from the three impact

10:52

scenarios is that collection of evidence

10:54

in nearly all cases

10:55

is going to happen after research is

10:57

completed and disseminated

10:58

possibly years after for some types of

11:01

research

11:01

such as co-produced or action research

11:03

there can be real-time impact

11:05

for change is being implemented very

11:07

quickly but even in those examples

11:09

the effect of changes to practice or

11:11

understanding will take time before

11:13

they're fully

11:14

realized this however doesn't mean that

11:16

there's nothing for you to do about

11:17

collection until that point

11:22

one of the five points i made at the top

11:24

of this episode

11:25

is to create a breadcrumb trail of

11:27

evidence what you collect today is

11:29

unlikely to be evidence of the eventual

11:31

impact

11:31

and will become out of date eventually

11:34

but having a record of milestones and

11:36

corroborating materials stored in a

11:37

simple spreadsheet or in a folder of

11:39

documents

11:40

is a good habit to develop there are

11:42

simple systems that you probably already

11:44

have in place to monitor and track

11:45

engagement during a research project

11:47

that will help you to track the

11:49

incremental journey to impact too

11:53

in terms of quantitative data do gather

11:55

numbers and demographic breakdown of

11:57

attendees at public events

11:59

gather details of individuals attending

12:01

knowledge exchange seminars

12:03

track your social media dissemination

12:05

website visits and numbers of downloads

12:09

and recording this sort of basic data is

12:11

commonplace reporting back to many

12:13

funders

12:13

plus it helps you to know if anyone's

12:15

engaging

12:18

collecting qualitative evidence is not

12:20

appropriate for every research project

12:22

and is often more commonplace research

12:24

that closely involves stakeholders

12:26

but if you're interested in measuring

12:27

change to knowledge or attitudes through

12:29

exposure or involvement with the

12:31

research

12:32

doing small scale evaluation at the

12:33

start of the research to provide a

12:35

baseline and then another near the end

12:37

giving you valuable data and maybe

12:39

something you may consider incorporating

12:41

formally into the proposed research

12:42

process

12:44

you can also collect qualitative data

12:46

from feedback

12:47

at public engagement events for example

12:52

when it comes to collecting evidence of

12:54

impact post research there's no

12:55

recognized and foolproof system

12:58

essentially it's about being aware of

13:00

what happens to your research

13:01

which is something i hope you would do

13:03

anyway conduct an annual search for

13:05

citations

13:07

if your work is being cited in

13:08

professional journals take a closer look

13:10

as it may describe the research's

13:12

contribution to a new product or it

13:13

being incorporated into a new public

13:15

service

13:17

staying close to the research as it

13:18

develops towards uptake use and impact

13:21

is the best way of identifying and

13:22

tracking impact

13:24

but that does not always happen it's

13:26

worth reminding you that not

13:28

every piece of research will end up in

13:30

an amazing world leading change

13:32

often research contributes to knowledge

13:35

and it's simply not possible to track an

13:36

eventual impact

13:38

and that's absolutely fine by simply

13:40

keeping an eye on what happens to your

13:42

research

13:43

you're increasing the likelihood of

13:44

identifying the opportunities

13:46

that will lead to eventual impact

13:54

that brings us to the end of this

13:55

episode on evidence

13:57

i hope you are now clear on what

13:58

indicators of impact are and how it

14:00

might relate to your research

14:02

next episode is on writing an impact

14:03

case study and provides some guidance on

14:05

how to use the evidence to tell the

14:07

story of your research impact

14:21

you

English (auto-generated)

Monitor your outputs

There are various tools available to help you keep track of where your research is being picked up and used. Using them, you might identify where your work is having an impact, both within and beyond the academic world.

Responsible use of metrics

It is important that research metrics are used responsibly, in a fair, transparent and robust way. Over the last five years, the use and alleged abuse of metrics in research assessment has been in sharp focus, with three major frameworks all calling for a significant change in the culture of metrics use:

- The San Francisco Declaration on Research Assessment (DORA)

  what is DORA?

  The Declaration on Research Assessment (DORA) recognizes the need to improve the ways in which researchers and the outputs of scholarly research are evaluated.

  The idea to write the declaration was developed in 2012 during at the Annual Meeting of the American Society for Cell Biology in San Francisco. It has become a worldwide initiative covering all scholarly disciplines and all key stakeholders including funders, publishers, professional societies, institutions, and researchers.

  We encourage all individuals and organizations who are interested in developing and promoting best practice in the assessment of researchers and scholarly research to sign DORA.

- The Leiden Manifesto

  Bibliometrics: The Leiden Manifesto for research metrics

  Diana Hicks, Paul Wouters, Ludo Waltman, Sarah de Rijcke & Ismael Rafols

  Nature volume 520, pages429–431 (2015)Cite this article

  66k Accesses

  1270 Citations

2111 Altmetric

Metricsdetails

Use these ten principles to guide research evaluation, urge Diana Hicks, Paul Wouters and colleagues.

Credit: Illustration by David Parkins

Data are increasingly used to govern science. Research evaluations that were once bespoke and performed by peers are now routine and reliant on metrics1. The problem is that evaluation is now led by the data rather than by judgement. Metrics have proliferated: usually well intentioned, not always well informed, often ill applied. We risk damaging the system with the very tools designed to improve it, as evaluation is increasingly implemented by organizations without knowledge of, or advice on, good practice and interpretation.

Before 2000, there was the Science Citation Index on CD-ROM from the Institute for Scientific Information (ISI), used by experts for specialist analyses. In 2002, Thomson Reuters launched an integrated web platform, making the Web of Science database widely accessible. Competing citation indices were created: Elsevier's Scopus (released in 2004) and Google Scholar (beta version released in 2004). Web-based tools to easily compare institutional research productivity and impact were introduced, such as InCites (using the Web of Science) and SciVal (using Scopus), as well as software to analyse individual citation profiles using Google Scholar (Publish or Perish, released in 2007).

In 2005, Jorge Hirsch, a physicist at the University of California, San Diego, proposed the h-index, popularizing citation counting for individual researchers. Interest in the journal impact factor grew steadily after 1995 (see 'Impact-factor obsession').

Lately, metrics related to social usage and online comment have gained momentum — F1000Prime was established in 2002, Mendeley in 2008, and Altmetric.com (supported by Macmillan Science and Education, which owns Nature Publishing Group) in 2011.

As scientometricians, social scientists and research administrators, we have watched with increasing alarm the pervasive misapplication of indicators to the evaluation of scientific performance. The following are just a few of numerous examples. Across the world, universities have become obsessed with their position in global rankings (such as the Shanghai Ranking and Times Higher Education's list), even when such lists are based on what are, in our view, inaccurate data and arbitrary indicators.

Some recruiters request h-index values for candidates. Several universities base promotion decisions on threshold h-index values and on the number of articles in 'high-impact' journals. Researchers' CVs have become opportunities to boast about these scores, notably in biomedicine. Everywhere, supervisors ask PhD students to publish in high-impact journals and acquire external funding before they are ready.

In Scandinavia and China, some universities allocate research funding or bonuses on the basis of a number: for example, by calculating individual impact scores to allocate 'performance resources' or by giving researchers a bonus for a publication in a journal with an impact factor higher than 15 (ref. 2).

In many cases, researchers and evaluators still exert balanced judgement. Yet the abuse of research metrics has become too widespread to ignore.

We therefore present the Leiden Manifesto, named after the conference at which it crystallized (see http://sti2014.cwts.nl). Its ten principles are not news to scientometricians, although none of us would be able to recite them in their entirety because codification has been lacking until now. Luminaries in the field, such as Eugene Garfield (founder of the ISI), are on record stating some of these principles[3,4]. But they are not in the room when evaluators report back to university administrators who are not expert in the relevant methodology. Scientists searching for literature

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with which to contest an evaluation find the material scattered in what are, to them, obscure journals to which they lack access.

We offer this distillation of best practice in metrics-based research assessment so that researchers can hold evaluators to account, and evaluators can hold their indicators to account.

Credit: Data Source: Thomson Reuters Web of Science; Analysis: D.H., L.W.

Ten principles

1) Quantitative evaluation should support qualitative, expert assessment. Quantitative metrics can challenge bias tendencies in peer review and facilitate deliberation. This should strengthen peer review, because making judgements about colleagues is difficult without a range of relevant information. However, assessors must not be tempted to cede decision-making to the numbers. Indicators must not substitute for informed judgement. Everyone retains responsibility for their assessments.

2) Measure performance against the research missions of the institution, group or researcher. Programme goals should be stated at the start, and the indicators used to evaluate performance should relate clearly to those goals. The choice of indicators, and the ways in which they are used, should take into account the wider socio-economic and cultural contexts. Scientists have diverse research missions. Research that advances the frontiers of academic knowledge differs from research that is focused on delivering solutions to societal problems. Review may be based on merits relevant to policy, industry or the public rather than on academic ideas of excellence. No single evaluation model applies to all contexts.

3) Protect excellence in locally relevant research. In many parts of the world, research excellence is equated with English-language publication. Spanish law, for example, states the desirability of Spanish scholars publishing in high-impact journals. The of impact factor is calculated for journals indexed in the US-based and still mostly

English-language Web of Science. These biases are particularly problematic in the social sciences and humanities, in which research is more regionally and nationally engaged. Many other fields have a national or regional dimension — for instance, HIV epidemiology in sub-Saharan Africa.

This pluralism and societal relevance tends to be suppressed to create papers of interest to the gatekeepers of high impact: English-language journals. The Spanish sociologists that are highly cited in the Web of Science have worked on abstract models or study US data. Lost is the specificity of sociologists in high-impact Spanish-language papers: topics such as local labour law, family health care for the elderly or immigrant employment5. Metrics built on high-quality non-English literature would serve to identify and reward excellence in locally relevant research.

4) Keep data collection and analytical processes open, transparent and simple. The construction of the databases required for evaluation should follow clearly stated rules, set before the research has been completed. This was common practice among the academic and commercial groups that built bibliometric evaluation methodology over several decades. Those groups referenced protocols published in the peer-reviewed literature. This transparency enabled scrutiny. For example, in 2010, public debate on the technical properties of an important indicator used by one of our groups (the Centre for Science and Technology Studies at Leiden University in the Netherlands) led to a revision in the calculation of this indicator6. Recent commercial entrants should be held to the same standards; no one should accept a black-box evaluation machine.

Simplicity is a virtue in an indicator because it enhances transparency. But simplistic metrics can distort the record (see principle 7). Evaluators must strive for balance — simple indicators true to the complexity of the research process.

Simplicity is a virtue in an indicator because it enhances transparency.

5) Allow those evaluated to verify data and analysis. To ensure data quality, all researchers included in bibliometric studies should be able to check that their outputs have been correctly identified. Everyone directing and managing evaluation processes

should assure data accuracy, through self-verification or third-party audit. Universities could implement this in their research information systems and it should be a guiding principle in the selection of providers of these systems. Accurate, high-quality data take time and money to collate and process. Budget for it.

6) Account for variation by field in publication and citation practices. Best practice is to select a suite of possible indicators and allow fields to choose among them. A few years ago, a European group of historians received a relatively low rating in a national peer-review assessment because they wrote books rather than articles in journals indexed by the Web of Science. The historians had the misfortune to be part of a psychology department. Historians and social scientists require books and national-language literature to be included in their publication counts; computer scientists require conference papers be counted.

Citation rates vary by field: top-ranked journals in mathematics have impact factors of around 3; top-ranked journals in cell biology have impact factors of about 30. Normalized indicators are required, and the most robust normalization method is based on percentiles: each paper is weighted on the basis of the percentile to which it belongs in the citation distribution of its field (the top 1%, 10% or 20%, for example). A single highly cited publication slightly improves the position of a university in a ranking that is based on percentile indicators, but may propel the university from the middle to the top of a ranking built on citation averages7.

7) Base assessment of individual researchers on a qualitative judgement of their portfolio. The older you are, the higher your h-index, even in the absence of new papers. The h-index varies by field: life scientists top out at 200; physicists at 100 and social scientists at 20–30 (ref. 8). It is database dependent: there are researchers in computer science who have an h-index of around 10 in the Web of Science but of 20–30 in Google Scholar9. Reading and judging a researcher's work is much more appropriate than relying on one number. Even when comparing large numbers of researchers, an approach that considers more information about an individual's expertise, experience, activities and influence is best.

8) Avoid misplaced concreteness and false precision. Science and technology indicators are prone to conceptual ambiguity and uncertainty and require strong assumptions that are not universally accepted. The meaning of citation counts, for

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example, has long been debated. Thus, best practice uses multiple indicators to provide a more robust and pluralistic picture. If uncertainty and error can be quantified, for instance using error bars, this information should accompany published indicator values. If this is not possible, indicator producers should at least avoid false precision. For example, the journal impact factor is published to three decimal places to avoid ties. However, given the conceptual ambiguity and random variability of citation counts, it makes no sense to distinguish between journals on the basis of very small impact factor differences. Avoid false precision: only one decimal is warranted.

9) Recognize the systemic effects of assessment and indicators. Indicators change the system through the incentives they establish. These effects should be anticipated. This means that a suite of indicators is always preferable — a single one will invite gaming and goal displacement (in which the measurement becomes the goal). For example, in the 1990s, Australia funded university research using a formula based largely on the number of papers published by an institute. Universities could calculate the 'value' of a paper in a refereed journal; in 2000, it was Aus$800 (around US$480 in 2000) in research funding. Predictably, the number of papers published by Australian researchers went up, but they were in less-cited journals, suggesting that article quality fell10.

10) Scrutinize indicators regularly and update them. Research missions and the goals of assessment shift and the research system itself co-evolves. Once-useful metrics become inadequate; new ones emerge. Indicator systems have to be reviewed and perhaps modified. Realizing the effects of its simplistic formula, Australia in 2010 introduced its more complex Excellence in Research for Australia initiative, which emphasizes quality.

Next steps

Abiding by these ten principles, research evaluation can play an important part in the development of science and its interactions with society. Research metrics can provide crucial information that would be difficult to gather or understand by means of individual expertise. But this quantitative information must not be allowed to morph from an instrument into the goal.

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The best decisions are taken by combining robust statistics with sensitivity to the aim and nature of the research that is evaluated. Both quantitative and qualitative evidence are needed; each is objective in its own way. Decision-making about science must be based on high-quality processes that are informed by the highest quality data.

- The Metric Tide

Following extended, careful consideration, and review of the three major frameworks and policies developed by other universities, UCD agreed its statement on the responsible use of research metrics.

Bibliometrics

Bibliometrics is the quantitative analysis of publications. It can be used alongside qualitative, expert assessment to provide evidence of academic impact. For example:

- **Article/book citation impact** – The academic impact of particular works (journal articles, conference proceedings, books) can be evidenced by the number of times they are cited by other works.
- **Researcher citation impact** – The number of works a researcher has published, and the number of times these works have been cited, can be an indicator of the academic impact of an individual researcher.

There are many tools and databases available for tracking citations, including the following:

- (opens in a new window)Scopus – A multidisciplinary database that covers approximately 23,000 journals. Check your profile regularly in Scopus, to ensure your author details are correct and any relevant publications are correctly attributed to you. This is especially important if you have changed affiliation recently. You can update and edit your profile, and add UCD as your current affiliation, via the (opens in a new window)Scopus Author Feedback Wizard.
- (opens in a new window)SciVal – A useful tool for monitoring your academic impact by helping you to visualise research impact, benchmark impact relative to peers, find research partners, create customisable reports, and identify and analyse emerging research trends.

- (opens in a new window)Web of Science – Includes the Science Citation Index, Social Sciences Citation Index, and the Arts and Humanities Citation Index.
- (opens in a new window)Google Scholar – Consists mainly of scholarly material, including journal papers, conference papers, technical reports, theses, pre-prints, post-prints, abstracts and court opinions. It also automatically includes scholarly works from Google Book Search. Google Scholar's strength is the broad scope of content across types of publications and disciplines. It generally has good international and non-English language coverage.
- (opens in a new window)Dimensions – A multidisciplinary source that includes citation data from CrossRef, the field and relative citation ratios, and other indicators from Altmetric.

You can also track online attention through statistics on downloads and views from repositories and social networking sites, such as (opens in a new window)Research Repository UCD, (opens in a new window)ResearchGate, (opens in a new window)Academia.edu, and (opens in a new window)LinkedIn.

LibGuide! See UCD Library's guidance on (opens in a new window)using bibliometics (including how to (opens in a new window)use citation-tracking tools), and their (opens in a new window)guide to Tracking Social Media Impact.

Altmetric Explorer

Altmetric Explorer for Institutions is an intuitive platform that lets you monitor the online activity surrounding academic research. You can use it to learn:

- Where your research is referenced by policy and patent documents
- Where your research is being picked up by national and international news outlets
- Where engagement with research in your field is happening online
- Who is talking about your research
- Which journals are publishing research that receives the most online attention

You can find detailed guidance on using Altmetrics on the UCD Research Services Portal.

Whenever you mention your research online, make sure that you link to a page that includes your work's unique identifier. This can be a DOI, arXiv ID, or PubMed ID. This will ensure that your work is tracked by Altmetric, so that you can keep on top of the conversations surrounding your research.

If you'd like to read more about how Altmetric suggest you promote your research online, download (opens in a new window)their guide. You can also consider downloading the (opens in a new window)Altmetric Bookmarklet, a free plugin for your browser that makes gives you article-level metrics on any paper you visit.

Evaluate your online activity

Are your Twitter posts sparking the kind of dialogue you want? Are your videos reaching the right people? To answer questions like these, consider tracking the success of your online activity.

First, establish your baseline. How many followers do you have? How many news articles pick up on your research each month? How many views, clicks and likes do your posts typically receive? From here, you can set KPIs or targets. You might want to increase your followers by X%, or you might want the average visit to your blog to increase by Y seconds. These goals should reflect what you want to get out of your online activity. There's no one-size-fits-all solution.

If you find you're not meeting your targets, adjust your approach. Reconsider your audience. Are you using the right platform to connect with them? Do you need to further refine your message?

How to write a winning impact summary and pathway to impact

Updated: Apr 16, 2020

Many researchers find the impact sections of their grant applications among the most challenging to complete. This guide explains exactly what you need to write in the two separate impact sections in a Research Council bid (your impact summary and your pathway to impact), and also applies to the impact sections of grant applications for other funders. Click on the podcast logo here for an extended audio version of this guide or scroll to the bottom for a summary video version.

A strong impact summary and pathway to impact can make the difference between getting funded or not if your application is tied with others in the "danger zone" near the funding cut-off. Being able to demonstrate impact is even more important if you are applying for funding for the Global Challenges Research Fund, where you have to demonstrate how your work will contribute to Overseas Development Assistance.

You can see best practice examples of impact summaries and pathways to impact here. If you have a good example, get in touch - the more examples we receive, the more useful this resource will be.

What should be in my impact summary?

The impact summary is meant to answer just two questions:

1. Who might benefit from this research?

2. How might they benefit from this research?

To answer these questions, all you need to do is to: i) Clearly articulate impact goals (not dissemination or knowledge exchange goals – that's part of your pathway to impact); and ii) list (and group) your publics and/or stakeholders. The next two sections explain how...

How can I identify powerful impact goals?

- Start by identifying clear impact goals, if possible making them as specific, measurable, achievable, realistic and time-bound (SMART) as possible. Struggling? Try these tips:
- Visualise yourself at the end of your project having achieved an impact that everyone is talking about. Where are you and what can you see? What has changed? What are people saying about how they have benefited?

- Make sure your impact goals aren't simply about communicating your research findings
- If they are, then ask yourself who is most likely to be interested in your work outside academia, and how those who hear about your work are likely to benefit from or use what they learn
- If you don't know the answer to these questions, just focus on trying to identify the aspects of your work that you think people outside academia are most likely to be interested in. Then ask yourself why you think they might be interested in this aspect of the work
- If you're still struggling, go out and speak to some of the people you think might be interested, and ask them what interests them most, what might make it more interesting/relevant to them, and how they would like to benefit from or use your work
- If you have a goal that is all about communication rather than impact, then you might have a good idea of the sorts of modes of communication you want to use (e.g. social media, film), and an alternative is to work back from the communication method you're interested in using, to the people who will engage with that method, and then their interests and how they will benefit. Beware that in some cases you may discover that the communication method you want to use will not actually reach people who are interested or can use your work (for this reason it is always best to start with the goal and/or your publics/stakeholders first, before choosing your pathways to impact)
- Download the Fast Track Impact Planning template for a structured method of linking impact goals to publics/stakeholders, research findings and pathways to impact. If you find it hard starting with the goals, try and start by identifying your publics/stakeholders and what they might be interested in, and then work back from there to your goals

How do I know who might benefit from my work?

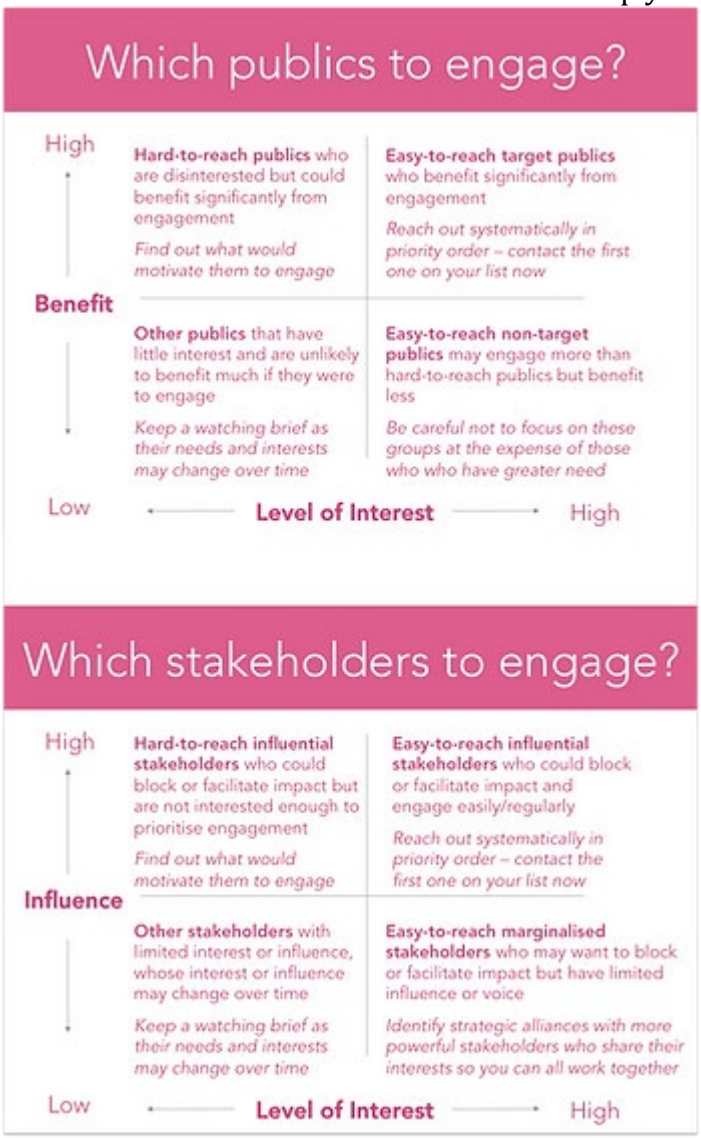
Now you've got some clear impact goals, you need to identify the publics and/or stakeholders that will benefit when these goals have been achieved. Here are some tips to make this easy:

- If you have limited knowledge and experience of publics/stakeholders working in your area, team up with a colleague who knows more. If you have time and contacts, consider inviting someone from outside academia who works with the people you want to help, and get them to advise you on the key groups you need to reach out to
- For stakeholders, consider the relative interest each group or organisation has in your work, and their relative influence over your ability to achieve your impact goals. This influence could be negative (blocking you from achieving impact) or positive (enabling you to achieve things that would not have been possible without their help)
- For publics, in addition to considering their relative interest in your work, consider the extent to which different groups (e.g. demographics, interest groups) might benefit from your work
- See the graphics below for examples of actions you can take with each of the categories of publics and stakeholders that emerge from this analysis
- Reach out to as many of the groups that emerge as benefiting strongly or being highly influential before you submit your grant application to get their feedback and help with your pathway to impact. This will lead to a stronger, more credible

pathway and will give these groups a greater sense of joint ownership, making them more likely to engage if you get funded

- Download the Fast Track Impact stakeholder and publics analysis template to do a full analysis. You won't have room to put all of this information in your impact summary or pathway, but you will be able to use this information to group publics and stakeholders into categories (e.g. third sector, business, policy, or different sectors, socio-economic classes or interests), make strategic choices about who to highlight as key collaborators and give you a level of detail that will make your impact summary and pathway highly believable

This infographic shows how you can identify, categorise and prioritise publics and stakeholders for engagement, prioritising publics who will benefit most, and identifying the most influential stakeholders who can help you achieve impacts:



What are the essential things every pathway to impact should include?

According to JeS Help the Research Councils are looking for four things:

1. Activities that actively engage relevant stakeholders/publics;

2. Activities that meet their needs, interests and priorities;

3. A clear plan (including "timing, personnel, skills, budget, deliverables and feasibility"; and

4. Your track record with stakeholder/public engagement and impact.
Fast Track Impact did an analysis of pathways to impact that led to 4* impact case studies, which identified a number of important points. The Research Councils have great advice of their own here, and at the bottom of the page are links to advice on writing pathways to impact by each of the Research Councils. Here, I have tried to condense this mountain of advice down to the 10 most important things you need to make sure you don't forget:

1. Be specific

The number one piece of advice is to be specific. Tell reviewers exactly who you will work with (not just government, or even a particular department, but the specific policy team and if you have it the name of your contact in that team). Specify your goals clearly, with specific indicators that will tell you when each goals has been met. Explain how you will complete each activity in credible detail and why this is the best way of achieving a specific impact e.g. instead of social media, identify the platform you will use, who you will target that is on that platform, and what impact goals you will be able to preferentially achieve via this medium.

2. Demonstrate demand or interest in your work

Find evidence of growing public interest in the issues you are studying, numbers of people attending public engagement events or watching programmes linked to your subject. Demonstrate that stakeholders want/need your work, and if possible co-develop your pathway to impact (and in some cases the whole project) in collaboration with them. Establish an advisory panel (there is actually peer-reviewed evidence that these lead to impact more than many other pathways) and name the people you have invited, indicating where they have confirmed involvement.

3. Check you have activities to reach each of your goals

Systematically check if you have activities that will take you to each of your impact goals, and that you have identified activities that match the needs and preferences of each public/stakeholder group you identified in your impact summary.

4. Make it two-way

Where possible, focus on two-way engagement with publics and stakeholders rather than one-way communication of findings, so you get feedback and can adapt your approach to be as relevant and useful as possible. There is research evidence that projects that co-design outputs in collaboration with the people who need them, achieve greater uptake of their outputs because they are more relevant and people have a sense of shared ownership. Even for communication outputs like policy briefs, getting feedback from your target audience during the writing process can significantly increase the likelihood that your communication hits is mark.

5. Link to your impact track record

Talk about your track record on achieving impact, ideally with the groups and issues linked to your proposal. It is difficult to "prove" that you will be able to do what you are suggesting you will do, and some of the best evidence you have is a track record of having delivered impacts for these groups in these areas in the past. If you haven't got a track record yourself, consider bringing someone into your team who does and get them to work with you on your pathway to impact.

6. Build in impact evaluation

Have a plan for evaluating whether or not you are moving towards or away from impact, which will tell you when you have achieved your goals. The process of identifying indicators will help you identify clearer and more credible impact goals. Thinking in detail about how you will know if you achieved impact will often identify

risks and challenges that you can prepare for, making your plan even more credible. You can build in any costs of monitoring and evaluating impact into your proposal.

7. Cost it

Cost your pathway to impact and justify your request for these resources (if you are short of room in your Justification of Resources you can refer reviewers to your pathway to impact and vice versa). This shows how seriously you are taking impact, and adds credibility to your claim that these activities will actually happen. Some directed calls for proposals from the Research Councils in the past have suggested approximately 10% of the total budget should go to support Pathways to Impact. Researchers typically put in significantly less than this, fearing negative feedback from reviewers on their "value for money", but anything between 5% and 10% is reasonable.

8. Weave in impact to your research plan

If possible, weave your pathway to impact into your research plan, cross-referencing to it from your case for support at relevant points.

9. Keep it simple

Use plain English and make your pathway to impact stand alone (e.g. spelling out acronyms), as a lay member of a funding panel may only read the impact related parts of your proposal in any detail.

10. Seek specialist impact pre-review feedback

Don't rely on academic pre-reviewers to provide feedback on the impact sections of your proposal. Instead, seek feedback from someone in your University who specialises in impact, or if possible, get feedback on these sections from someone who works with the publics or stakeholders you want to benefit.

What if I am doing pure research that will not have any impact?

It is really difficult to come up with any sort of impact for some very pure, non-applied projects. In this case you cannot get away without producing an impact summary and pathway to impact if you want funding from the Research Councils. You don't have to use all the characters and pages you are given, but you do need to think about what the next steps might be, even if these happen many years after your research is done, that might possibly provide economic or societal benefit. You don't have to be right and no-one will hold you to this - just make some educated guesses. Do not, however, be tempted to include additional benefits for academics, students and the academy in this section, or you may risk your pathway to impact being deemed "unacceptable", requiring you to revise it before funding can be granted.

What are some of the most common mistakes people make in their pathway to impact and impact summary?

I've reviewed proposals for five out of the seven Research Councils and sat on funding panels for a number of Research Councils, EU and national governments. Here are a few of the most common mistakes I have seen:

- No clear impact goals (or the goals are just about communicating the research to stakeholders or publics)
- Benefits for researchers and the academy are included in the impact summary and/or pathway to impact, commonly including training and career benefits for early career researchers and students, and conference and workshops that will mainly be attended by researchers. Cut and paste them into your academic beneficiaries section and start again. If you genuinely want to include capacity building for your research team or students as part of your impact, explain how they will be able to use their skills and experience outside the academy to

generate societal or economic benefits, and consider how you will these achieve these benefits at scale, and evidence that they actually happen

- Social science data collection methods are replicated from the case for support in the pathway to impact, claiming that the knowledge or engagement gained from these methods will generate impact
- Public engagement for the sake of it – you have a clear pathway to impact via policy or industry and the reality is that your work is so niche, very few members of the public would be interested, but you're going to bore the socks off a bunch of unsuspecting passers-by because you felt you had to add public engagement into your pathway to impact
- Vague plans lacking detail are rarely credible
- The impact summary is copied and pasted into the pathway for impact or vice versa
- Even worse, copying and pasting from someone else's pathway to impact

Finally, many people remove any impact goals and associated activities that are uncertain or high risk, leaving only a small number of highly conservative outcomes and activities, which fail to inspire or excite reviewers or panel members. Your funder will not expect to see every goal achieved in the same way as your research objectives, so the risks of dreaming big are relatively low, and the higher you aim, the higher you are likely to reach. You should, however, only ever promise to do things that are credible and feasible, that you intend to actually pursue.

If you have spotted something I've missed or disagree with anything I've suggested, please comment below. In the meantime, check out these best practice examples of impact summaries and pathways to impact . If you have a good example, get in touch. I believe that by sharing good practice, we can spread innovation, drive up standards in grant writing and improve the likelihood that research delivers impact.

Get more advice on writing pathways to impact from your Research Council:

- AHRC
- BBSRC
- EPSRC
- ESRC
- MRC
- NERC
- STFC

Transcript

0:06

[Music]

0:17

hello everyone how are you today I want

0:20

to talk about how to write the impact

0:23

sections of your funding proposal so

0:26

that you are super competitive more and

0:29

more important as funders around the

0:31

world are asking us as part of the

0:33

research funding process to justify how

0:37

eventually our research might make a

0:39

difference and increasingly it can make

0:42

the difference between getting funded or

0:44

not so let's make this incredibly super

0:48

simple quick and easy because I think

0:50

we're making this way more complicated

0:52

than it really needs to be I'm in

0:55

Manchester today between two days ask

0:58

the Deputy Chair of a funding panel

1:00

Knossos the UK RI Future Leaders

1:04

fellowships so I'm gonna draw on my

1:07

experience as a reviewer as a panelist

1:09

as someone who has got research funding

1:11

from various funders but what I'm gonna

1:14

say will be relevant to you whether you

1:16

are in the UK whether you're a Europe

1:18

whether you're anywhere else in the

1:20

world because what the funders are

1:22

looking for is I would argue universal

1:25

and simple three things that you need to

1:28

get right if you want your next funding

1:31

proposal to be super competitive

1:35

and it is that simple three things I

1:38

need to have impact goals and needs as

1:41

beneficiaries only need activities or

1:44

pathways that will enable me to achieve

1:47

those impact goals for those

1:49

beneficiaries simple so let's start with

1:52

the first one impact goals and the

1:54

biggest problem that I see in proposals

1:56

is first of all that there are no impact

1:59

goals I would say the majority of impact

2:01

sections that I review actually don't

2:03

have any impact goals so ask yourself

2:06

what is the benefit that you want to see

2:08

ask yourself perhaps who is going to

2:11

benefit and then articulate some actual

2:15

real benefits that you think real people

2:18

might get at some point in future based

2:21

on your research the second biggest

2:24

problem I see with this is that people

2:26

put goals down but actually the goals

2:28

are engagement or pathway type goals so

2:32

we're going to do lots of policy

2:34

seminars we're going to engage with

2:37

social media we're going to do some

2:40

public engagement activities yeah great

2:42

but what I want to know is what is the

2:45

policy impact going to be what is the

2:47

benefit to society going to be those

2:49

public so you engage what are they going

2:51

to get out of that what is the benefit

2:52

for them that is your impact goal and so

2:56

that's fine you can have a bit of both

2:57

but make sure there's a clear benefit so

2:59

I've got a series of impact goals now

3:02

who now are those people that I want to

3:05

benefit and I'm now listing different

3:08

people now you can go to my website and

3:10

you can download my stakeholder analysis

3:12

or publics analysis tool and do this

3:14

formally it takes about half an hour to

3:16

do a really decent job of that now

3:18

you've got a big long list and you can

3:19

maybe group them and you can have

3:21

examples of the different types of

3:23

organizations you might see within each

3:25

of those groups or you can do it off the

3:26

top of your head either way that's all

3:28

good but you've got a list now of

3:30

specific and the key word here is

3:32

specific specific organizations groups

3:36

sectors of society that you think will

3:40

be able to benefit and the next thing

3:43

you do is you map between your impact

3:45

goals and your beneficiaries so

3:47

I'm having a look through and I'm

3:49

realizing huh there's an impact goal

3:51

here but there are no beneficiaries for

3:53

that well he would benefit from that

3:54

what's the missing group great I'm

3:56

adding it in and I'm looking through my

3:58

list of beneficiaries and now I've got a

4:00

beneficiary group here and there's no

4:03

impact goal

4:04

what is the benefit they get so let's

4:07

add that benefit and I've got a missing

4:09

impact goal which I've now filled in so

4:11

I've got a perfect mapping between my

4:13

impact goals which then add up with the

4:17

beneficiaries great and then final step

4:20

is I need to have specific activities

4:24

Evert will enable those groups to get

4:27

those benefits and again I'm laughing

4:30

them on so systematically I'm going

4:33

through and I'm asking myself right for

4:36

this first impact goal what are the

4:39

kinds of pathways that I might use that

4:41

would take me there and ideally not just

4:43

one thing but what would be the first

4:45

thing I would do and then what would

4:47

come after that and then after that and

4:49

eventually what will get me to that

4:51

specific benefit and once I've gone

4:55

through an open mapped and I've made

4:57

sure I've got an activity of at least

4:59

one activity but potentially a bit of a

5:02

string of activities for every one of

5:04

those impact goals I do the same thing

5:06

with my beneficiaries so systematically

5:09

I'm going through and I'm asking myself

5:10

right is there an activity that is

5:13

suitable for each and every one of those

5:15

particular groups and if there is a

5:18

group then for whom I don't have

5:21

anything that will work for them so

5:22

perhaps this is a group that I know

5:24

struggle with literacy or you have a

5:26

different language well what am I going

5:30

to do for that particular group and I

5:31

make sure that all of the beneficiaries

5:34

now have at least one activity ideally

5:37

for the impact that I believe they will

5:39

benefit most from that is a specifically

5:42

adapted to their contest their needs

5:44

their characteristics great and it's

5:47

just simply that I've got a map I've got

5:49

impact dolls that map to beneficiaries

5:51

that map to pathways that are now let me

5:55

show you what this looks like on my

5:57

website if you want to get

5:59

lots more advice and a tool that will

6:04

pretty much leave this for you then go

6:06

to my resources page and you can see I'm

6:09

just passing the pathway to impact

6:11

builder here and my best practice

6:14

library because I'm gonna take you to

6:17

the first of these impact guides so you

6:20

can see two guides here one for UK

6:22

funders one for horizon 2020 in the

6:25

European Union but I would argue between

6:28

the two of these you've got everything

6:30

you need for pretty much any thunder

6:31

wherever you are in the world to ace the

6:34

impact section so I've clicked on the UK

6:38

guide and you can see at the top here

6:40

there is an audio version of this so I

6:43

did a podcast on this a while ago so if

6:46

you want a much more detailed version

6:47

than this video you can have a look at

6:49

that and you can see a link here to the

6:52

pathway to impart builder let's click on

6:55

that so you can either we look at that

6:56

so you can see here we have basically a

7:01

forum and ten questions and you put the

7:05

answers to your questions into this

7:07

forum and you hit submit on that and you

7:12

get an email from me with a word

7:14

document with all of the answers

7:17

formatted asks the impacts actions of a

7:20

proposal in this kosis is formatted for

7:22

a UK proposal so you've got the answer

7:25

to your first two questions essentially

7:27

they're broken up a bit more what are my

7:29

goals and one of my beneficiaries that

7:31

is your impact summary and then I've got

7:34

the rest of this is now my pathway to

7:35

impact but it's there in a Word document

7:37

I can I can now go and edit this and

7:41

turn this into a proposal but I would

7:43

argue even at this stage if you've

7:45

really listened to those questions

7:46

thought about them and spent some time

7:49

answering those questions you've got

7:50

something pretty much ready to submit at

7:53

that point half an hour of your time

7:54

that's all it takes

7:56

what you can also see here I've just

7:58

gone back and clicked on the library so

8:03

I've got a best practice library

8:04

examples are pathways to impact from

8:06

proposals quite a few these are mine

8:08

that's quite hard to persuade people to

8:09

part with these but yeah

8:11

here we page if you've got something

8:13

is amazing send it to me if I agree I'll

8:15

put it in here but you get a sense of

8:18

what a good pathway to and that might

8:21

look like again different funders here

8:23

so you get a bit more of a flavor so

8:27

that's it

8:27

in brief three things that you need to

8:30

get right just three it's as simple as

8:32

that and a couple of tools that will

8:34

make this really quick and easy for you

8:36

to write your next funding proposal with

8:39

impacts actions that are super

8:41

competitive

8:42

enjoy

8:46

[Music]

English (auto-generated)